FEBRUARY 15, 1953

MODERN MEDICINE

The Journal of Diagnosis and Treatment

Dr. H. Earle Conwell
(see page 11)

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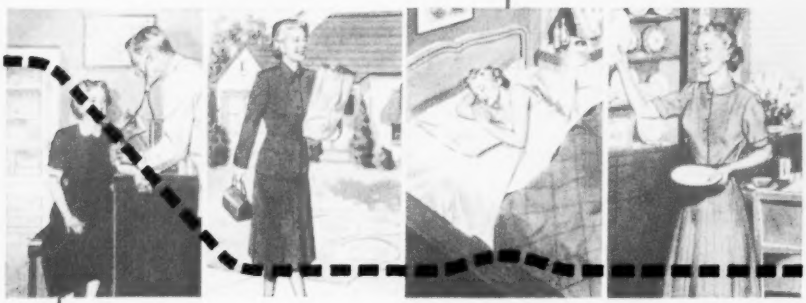
Safe, gradual, prolonged vasodilation

Isn't that what you want for your hypertensive patients?



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3. **For extra protection against hazards of capillary fragility**—*NITRANITOL with PHENOBARBITAL and RUTIN.*
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*alkavervir

to prevent attacks in angina pectoris

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Dosage: Usually 1 tablet 3 or 4 times daily. Available in 10 mg. tablets in bottles of 100 and 500. Literature and samples on request.

1 Humphreys, P., et al.: Angiology 3:1 (Feb.) 1952.
2. Plotz, M.: N.Y. State J. Med 52:2012 (Aug. 15) 1952.

Peritrate® TETRANITRATE

(BRAND OF PENTAERYTHRITOL TETRANITRATE)

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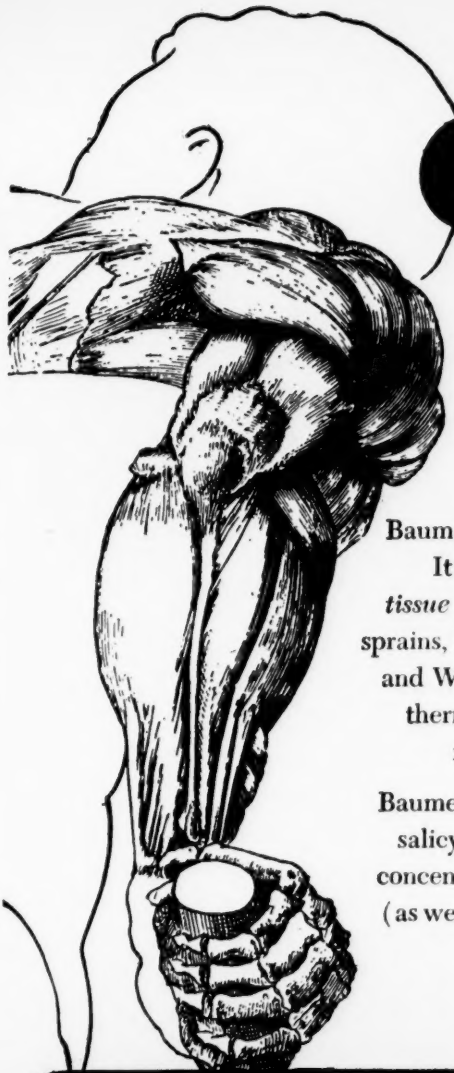

going deep

The "hyperkinemic" activity of Baume Bengué goes beneficially deep. It enhances blood flow *through the tissue area* in arthritis, myositis, muscle sprains, bursitis and arthralgia. As Lange and Weiner[1] determined by the use of thermo-needles, hyperkinemic effect may extend to a depth of 2.5 cm.

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Baume Bengué

ANALGESIQUE

1. Lange, K., and Weiner, D.: J. Invest. Dermat. 12:263 (May) 1949.

Available in both **regular** *and* **mild** *strengths.*

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Master OF THE *Sea*

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Prophylactic dose is one tablet. For severe deficiencies, two or more. Triple-coated SUR-BEX and SUR-BEX with Vitamin C are available in bottles of 100, 500 and 1000 compressed tablets. Abbott

Each SUR-BEX Tablet represents:

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1-102

Specify **Sur-bex®**

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or

Sur-bex WITH **C**

MODERN MEDICINE

THE JOURNAL OF DIAGNOSIS AND TREATMENT

MODERN MEDICINE, The Journal of Medical Progress, of Minneapolis, Minn., is published twice monthly on the first and fifteenth of each month, at 55 East 10th Street, St. Paul 2, Minn. Subscription rate: $10.00 a year, 50c a copy.

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. . . produces a more effective antispasmodic action than either belladonna or Butisol Sodium alone,

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FORMULA:
5 cc. (one teaspoonful) of the elixir represents:

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Ext. Belladonna . . 15 mg. (1/4 gr.)

SUPPLIED:
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1. Dripps, R. D.: Selective Utilization of Barbiturates, J.A.M.A. *139*:148-150 (Jan. 15) 1949.

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In irritable colon . . . emotional diarrhea . . .

peptic ulcer . . . pyloro-duodenal irritability . . .

pyrosis . . .

functional dysmenorrhea . . .

diarrhea due to acute

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ulcerative colitis . . .

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MODERN MEDICINE

THE JOURNAL OF DIAGNOSIS AND TREATMENT

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Just 1 or 2 Pentids Tablets t.i.d. are particularly effective against the more common bacterial respiratory infections . . . convenient, easy-to-take . . . cause fewer side effects . . . and are less than ½ the cost of the newer antibiotics.

*Hunt, A. D., Jr., Med. Clin. North Amer. 36:1607, Nov. 1952

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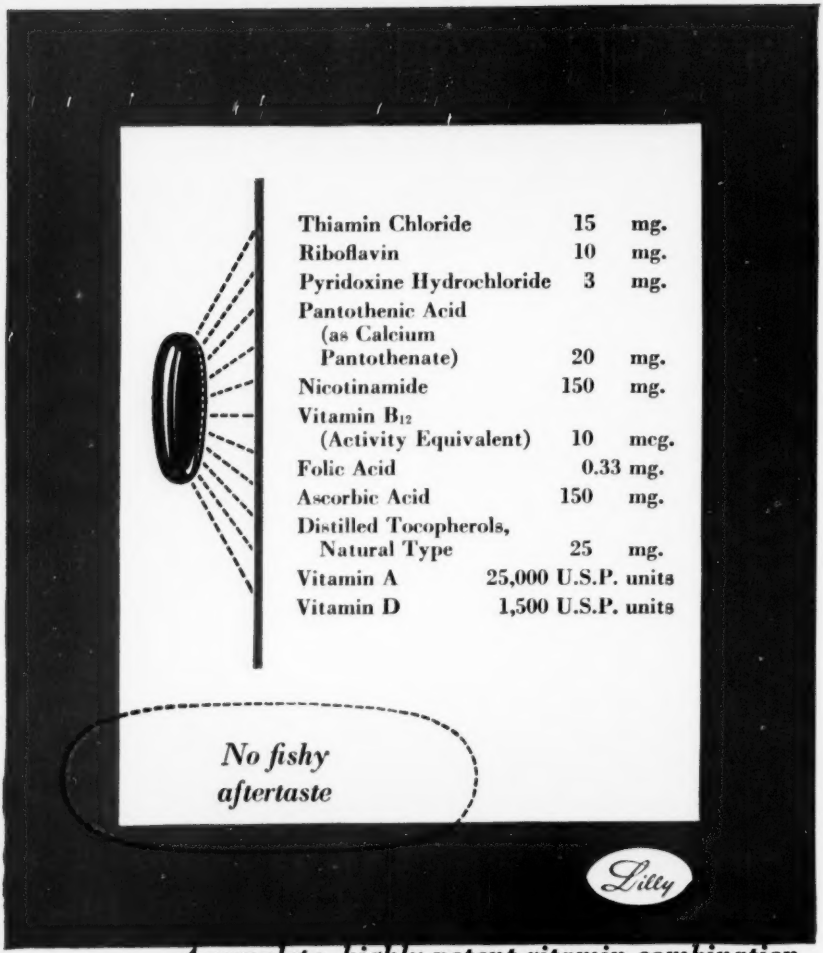

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Theracebrin

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for

February 15

1953

Modern Medicine

Vol. 21, No. 4

●

THE MAN ON THE COVER is Dr. H. Earle Conwell of Birmingham, Associate Professor of Orthopaedic Surgery at the Medical School of the University of Alabama. A member of Conwell Orthopaedic Clinic and all hospital staffs in Birmingham, Dr. Conwell is also consulting orthopedic surgeon to the Veterans' Hospitals in Tuscaloosa and Montgomery. He is a member of the American Orthopaedic Association, Southern Surgical Association, American Academy of Orthopaedic Surgeons, Robert Jones' Orthopaedic Club, and other national surgical associations. Dr. Conwell is coauthor of the text, *The Management of Fractures, Dislocations, and Sprains*. The report on page 125, "Problems in Fracture Treatment," appeared originally in the *Journal of the Medical Association of Georgia*.

Contents for February 15 1953

CONTINUED

mineral-vitamin protection
during **PREGNANCY**
and **LACTATION**

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PRECALCIN®

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organic and inorganic calcium, phosphorus, iron, and essential vitamins

small, easy-to-take capsules

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dry fill, no fish oil

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Often the critical evaluation of the drug to be administered is as important to the patient's recovery as is the diagnosis of his condition. In each case correct procedures can be determined only by the physician.

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notably effective
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LETTER FROM THE EDITOR

Dear Reader:

How often doctors exclaim, "Oh, I could write a book." They can, too, and do in fields far removed from medicine, as publishers' announcements attest. But many of us are too busy and are reluctant to tackle a job, no matter how pleasurable, that may extend over several years.

There is a way, however, to give vent to your writing urge. Address a letter to the editors. Editors like to hear from readers. They like to know what readers are doing and thinking. The editors like to learn how the readers regard the journal. They even welcome frank criticism.

Modern Medicine readers are particularly ready to indite a few lines when an article pleases or displeases them. Our mail hits a peak every two weeks, shortly after the latest issue has gone out in the mails. Several of the letters find their way into print and sometimes set up a chain reaction among other letter writers. But whether or not a communication is published, every letter is carefully read and answered.

We at *Modern Medicine* believe that the journal belongs to the readers. You are our customers. We would like to know more about you. How wonderful if time and space could be annihilated and it would be possible to have chats with each of you in your offices, after hours. If you think the same way, why not write a letter to the editor the next time you have an idea you would like to share. I know you *could* write a book, but the chances are that you will never get around to that.

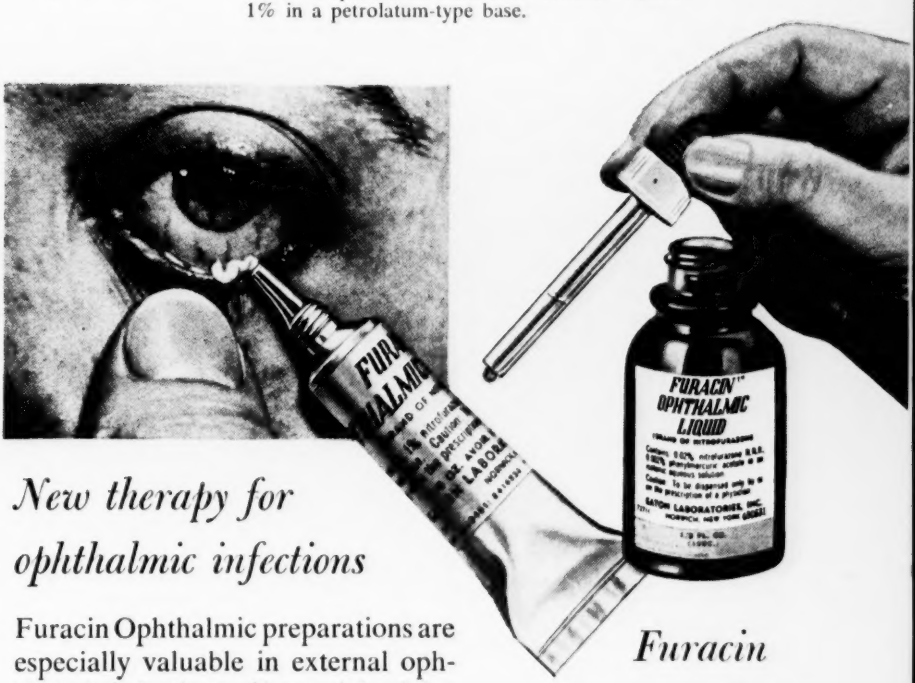
Walter C. Alvarez

EDITOR-IN-CHIEF

Reasons for effectiveness of Furacin

A wide antibacterial spectrum, including many gram-negative and gram-positive organisms • Effectiveness in the presence of wound exudates • Lack of cytotoxicity: no interference with healing or phagocytosis • Low incidence of sensitization • Stability.

Furacin Ophthalmic Liquid contains Furacin® 0.02% brand of nitrofurazone N.N.R. is an isotonic, aqueous vehicle. Furacin Ophthalmic Ointment contains Furacin 1% in a petrolatum-type base.



New therapy for ophthalmic infections

Furacin Ophthalmic preparations are especially valuable in external ophthalmic infections of bacterial origin: conjunctivitis, blepharitis—because of stability at body temperature and their wide antibacterial spectrum.

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The NITROFURANS
A unique class of antimicrobials

Correspondence

Communications from the readers of MODERN MEDICINE *are always welcome. Address communications to The Editors of* MODERN MEDICINE, *84 South 10th St., Minneapolis 3, Minn.*

The Therapeutic Kiss

TO THE EDITORS: The item, "Intractable Hiccups" *(Modern Medicine,* Oct. 1, 1952, p. 72), brings to mind a method of treatment which I "discovered" many years ago. Its advantage lies in its simplicity. It consists solely of a prolonged kiss. On the theory that some instances of hiccups are of psychic origin and can therefore be stopped by diverting the mind, it can be said to be quite scientific. Also it is pleasurable, as I recall. Obviously it can be applied only when a cooperative spouse or loved one of opposite sex is available.

HAROLD J. HARRIS, M.D.
New York City

Of Interest in India

TO THE EDITORS: We, a group of medical students, have established a library in this city with a view of promoting knowledge among our folk. We will be highly obliged if you will send us your magazine, free of charge, as a help to our budding institution.

VISWANATH HEDE
Panjim, India

¶ Arrangements have been made to send *Modern Medicine* to Panjim.—Ed.

Bone Rattling

TO THE EDITORS: The paper of Drs. Walter W. Sackett, Jr., and Ben J. Sheppard on a six-hour feeding schedule for infants *(Modern Medicine,* Dec. 1, 1952, p. 110) rattles the bones of the ghost of Regimented Infant Feeding Schedules which died a natural death on the general acceptance of demand feeding.

The strict adherence to scheduled feeding, so universal twenty to thirty years ago, imposed upon small infants the necessity of eating when the schedule called for it, whether hungry or not, and the deprivation of food at other times.

Every physician who has handled a great many babies is struck by two things: [1] the extreme variability in time in desire for foods by the young infant, and [2] the variability in adaptability to so-called solid foods. Babies naturally drift to a schedule of 3 meals a day, but at varying ages, some at 2 to 3 months, others later.

To enforce a 3-meal schedule on all babies from birth will undoubtedly make some babies, and consequently mothers, unhappy. To enforce the eating of solid food before the baby is ready for it may lead to anorexia and vomiting.

Truly
broad-spectrum
therapy in
each tasty
teaspoonful

CRYSTALLINE
Terramycin

BRAND OF OXYTETRACYCLINE, AMPHOTERIC

oral suspension

Pure, well-tolerated Terramycin in pleasant raspberry-flavored vehicle.

Each 5 cc. teaspoonful supplies 250 mg. of truly broad-spectrum antibiotic effective against gram-positive and gram-negative bacteria, including the important coli-aerogenes group, rickettsiae, certain large viruses and protozoan organisms.

Pfizer *world's largest producer of antibiotics*

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I think, on the whole, the best solution is to let each baby work out his own schedule and feed him solids as early as he can and does take them.

WILLIAM M. HAPP, M.D.
Escondido, Calif.

Forced Feeding

TO THE EDITORS: In the Special Article "Obesity and Diet Control" (*Modern Medicine*, Nov. 15, 1952, p. 76) Dr. Joseph H. Barach states: "The effects of prolonged forced feeding on animals are being studied." In Eastern Europe, geese have been subjected to "prolonged forced feeding" for centuries. The deposit of excess fat in the subcutaneous and perivisceral tissues has always been accompanied by an enormously enlarged yellow liver showing fatty degeneration.

ALFRED ROSSKAMM ROSS, M.D.
New York City

Grateful for Support

TO THE EDITORS: We're very grateful for your support and promotion of the United Red Feather Campaigns of America last fall. Conservative estimates indicate that more than $250,000,000 will have been contributed by the generous American public. Your help was a positive factor in the achievement of this fine result.

H. J. HEINZ II
National Chairman

Controls Useless Nagging Cough

Syrup 'Histadyl E.C.'° is an effective combination of:

Codeine Phosphate (1 gr. per fl. oz.)
a bronchial sedative

Ephedrine Hydrochloride (1/2 gr. per fl. oz.)
a bronchodilator

Thenylpyramine Fumarate (1 1/3 grs. per fl. oz.)
an antiallergic

and Ammonium Chloride (10 grs. per fl. oz.)
an expectorant

in a pleasantly flavored syrup acceptable to both children and adults. It is available on prescription at pharmacies everywhere.

°Federal record of sale required.

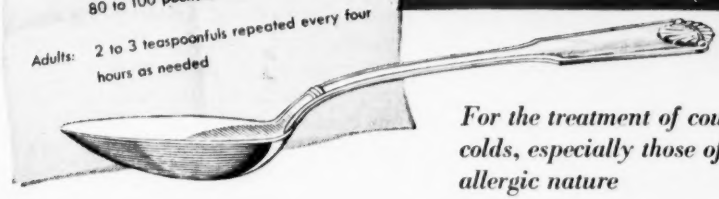
Eli Lilly and Company
Indianapolis 6, Indiana, U.S.A.

DOSAGE

Children: 30 to 50 pounds, ½ to 1 teaspoonful
50 to 80 pounds, 1 to 1½ teaspoonfuls
80 to 100 pounds, 1½ to 2 teaspoonfuls

Adults: 2 to 3 teaspoonfuls repeated every four hours as needed

Lilly



For the treatment of coughs and colds, especially those of an allergic nature

SYRUP

'Histadyl E.C.'

(THENYLPYRAMINE COMPOUND E.C., LILLY)

Editorial a Masterpiece

TO THE EDITORS: The editorial, "The EEG Greatly Aids Diagnosis," written by Dr. Walter C. Alvarez is a masterpiece *(Modern Medicine,* Dec. 1, 1952, p. 67*)*. You are to be congratulated for bringing this important information to the attention of so many physicians reached by your journal.

Our experience fully substantiates this view. In our postgraduate courses we have stressed the protean nature and manifestations of seizure disorders affecting the motor, sensory, affective, and autonomic systems.

In our neuropsychiatric experience, we have found a statistically large number of abnormalities in the EEG. These have been in the nature of paroxysmal dysrhythmia and temporal lobe spiking and/or slowing. These have appeared associated with psychoneurotic and psychotic pictures.

The symptoms associated with these abnormalities which have responded to anticonvulsant therapy include: dizziness, headaches, attacks of nausea and vomiting, flushing, sweating, fainting spells, episodic rage, aphasia, nightmares (as symptoms of psychomotor epilepsy), attacks of weeping, yawning, enuresis, visual (formed) and olfactory hallucinations, *déjà vu,* attacks of fear, and so on.

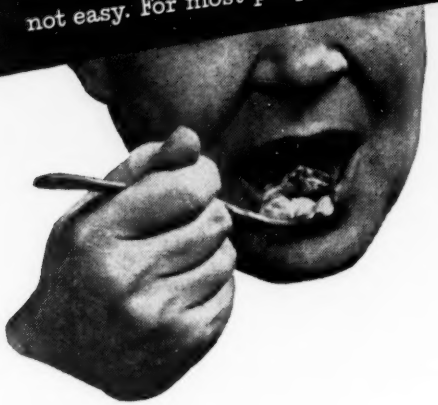
AARON W. BORTIN, M.D.
Roslyn, N. Y.

Nutritional Data on Label

TO THE EDITORS: Although manufacturers of canned and other packaged foods emphasize the in-

(Continued on page 26)

The only sure way to lose weight is to eat less. But that's not easy. For most people it's nearly impossible.



New Methylcellulose wafer

Melozets make the most of a bad habit

More appetite-satisfying bulk in these 60 calories than in

1200 CALORIES

420 CALORIES

Melozets

METHYLCELLULOSE WAFERS

helps fat people lose weight!

SHARP & DOHME

Overeating is a bad habit. Yet many people have it. MELOZETS, newly* developed Sharp & Dohme anti-obesity preparation, actually take advantage of the craving for food.

MELOZETS look and taste almost exactly like graham crackers, yet each wafer contains 1.5 Gm. of bulk-forming methylcellulose. When taken as directed, MELOZETS safely satisfy the desire to overeat by providing harmless bulk which gives a gratifying sense of fullness. Patients are delighted to find that this anti-obesity "medicine" is, to taste and appearance, a delicious graham cracker—a treat they are perfectly welcome to eat between meals. Containing only 30 calories per wafer, MELOZETS actually satisfy appetite better than the high-calorie "snacks" fat people are so fond of.

DOSAGE: 1 or 2 MELOZETS Wafers ½-hour before meals or when hungry. *A full glass of water* must be taken with each wafer to insure proper bulk formation. Not more than 8 wafers should be taken in a 24-hour period. MELOZETS are contraindicated in the presence of intestinal obstruction. MELOZETS are packed in ½-lb. boxes, containing approximately 25 methylcellulose wafers.

Sharp & Dohme, Philadelphia 1, Pa.

**Patent applied for*

NOTE: MELOZETS *are now in the process of being distributed nationally.*

gredients of their product and often list the specific vitamins, additional information should be printed on the label. The obese, cardiac, or diabetic patient, in particular, cautioned to consume a given number of calories would be much happier if he could make substitutions easily. The calorie problem could be simplified if the product label stated that so many tablespoonfuls or cups or a slice of a given thickness contained 100 calories. Any easily understood household measure could be adopted. To meet the needs of many patients, the listed household measure of the product, equivalent to 100 calories, should also indicate the total grams of carbohydrate, fat, protein, sodium, and cholesterol content.

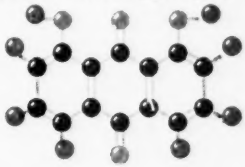
I believe that such information would detract little from the label, as such, and would prove beneficial to both the patient and the doctor. Due to difference in acceptability of certain foods by patients, strict adherence to diet lists given by the doctor is often temporary. A label on all packaged foods and liquids listing total calories, carbohydrate, fat, protein, sodium, and cholesterol could help reduce dietetic "cheating" among patients and, particularly, educate every consumer from a nutritional point of view.

CAPT. LOUIS J. POLSKIN, M.C.
Fort Knox, Ky.

DORBANE

TRADEMARK

[1, 8-DIHYDROXYANTHRAQUINONE SCHENLEY]



an effective, modern therapeutic agent chemically related to cascara, for precise, well-tolerated, individualized management of acute or chronic constipation

DORBANE*—a pure compound—exerts a mild yet dependable effect on the large bowel. Effective dosage can be determined individually with ease and accuracy. Abundant clinical evidence has shown DORBANE to be free from undesirable side-effects.

AVAILABLE as DORBANE Scored Tablets, bottles of 100, each containing 0.150 Gm. active ingredient; and DORBANE Confets* (orange-flavored wafers, like candy), tubes of 20, each containing 0.075 Gm.

ADMINISTERED one hour after evening meal (evacuation usually occurs the following morning). Dosage for adults—½ to 2 tablets or 1 to 4 Confets daily; for children—½ to 1 tablet or 1 to 2 Confets. Start with minimum dosage and adjust to individual response.

SCHENLEY LABORATORIES, INC.
LAWRENCEBURG, INDIANA

schenley

Only the WHOLE Fruit

CAN GIVE YOU ALL ITS NUTRITIONAL BENEFITS...

As shown by the comparative tables below, only the whole orange can provide all of the valuable nutritional benefits of the fruit.

While orange juice is a popular and pleasant way to provide the daily quota of vitamin C, the fact is that the whole fruit is considerably richer in vitamin C and other nutrients as well as in the protopectins. These substances, the protopectins, are found principally in the albedo, the membranes enclosing the juice sacs and segments, and the fibrovascular bundles.

Only when oranges are eaten whole can *all* the benefits of the fruit be realized, especially the desirable effects of the protopectins which, through their colloidal, chemical, and antibacterial properties, help to maintain a desirable intestinal environment, promote better absorption of vitamins and minerals, and effect more normal evacuation.

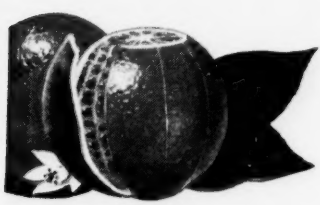
Approximate Typical Analyses of Edible Portion and Strained Juice of California Oranges. Amounts shown are per 100 Gm. of fresh weight.

Constituents	Fresh Fruit, peeled	Strained Juice	Constituents	Fresh Fruit, peeled	Strained Juice
Calories	46	46	Inositol	400.0 mg.	200.0 mg.
Protein (including free amino acids*)[1,4]	1.0 Gm.	0.9 Gm.	Biotin	0.004 mg.	0.002 mg.
Fat	0.3 Gm.	0.2 Gm.	Folic acid	0.004 mg.	0.002 mg.
Dextrose and Levulose	4.0 Gm.	4.6 Gm.	Ascorbic acid (vitamin C)	60.0 mg.	57.0 mg.
Sucrose	4.0 Gm.	4.6 Gm.	Flavonoids (vitamin "P")[3]	1.0 Gm.	0.1 Gm.
Protopectins and Pectin	1.0 Gm.[2]	0.1 Gm.	Minerals (total ash)	0.5 Gm.	0.4 Gm.
Citric acid	1.0 Gm.	1.0 Gm.	Calcium	50.0 mg.	11.6 mg.
Malic acid	0.1 Gm.	0.1 Gm.	Phosphorus	30.0 mg.	20.0 mg.
Carotenes (pro-vitamin A)	1.0 mg.	0.16 mg.	Iron	1.0 mg.	0.25 mg.
Thiamine (vitamin B_1)	0.2 mg.	0.086 mg.	Sodium	9.0 mg.	6.0 mg.
Riboflavin	0.1 mg.	0.032 mg.	Potassium	150.0 mg.	170.0 mg.
Niacin	0.5 mg.	0.24 mg.	Magnesium	10.0 mg.	13.0 mg.
Pantothenic acid	0.5 mg.	0.21 mg.	Sulfur	10.0 mg.	8.0 mg.
Pyridoxine	0.2 mg.	0.08 mg.	Chlorine	6.0 mg.	6.0 mg.
			Alkalinity of ash, expressed as K_2CO_3	0.3 Gm.	0.3 Gm.

* Free amino acids include alanine, arginine, asparagine, cysteine, serine, proline, and glutamic, aspartic and gamma-aminobutyric acids. Glutathione is also present.

1. Underwood, J. C., and Rockland, L. B.: Food Research, in press.
2. Miner Laboratories, Chicago, Illinois. (1952)
3. Davis, W. B.: Determination of Flavanones in Citrus Fruits, Anal. Chem. 19:476 (July) 1947.
4. Underwood, J. C., and Rockland, L. B.: Arch. Biochem., in press.

All others from figures taken from the literature and data compiled by Research Department, Sunkist Growers. From known tissue distribution figures, appropriate adjustments have been made to reflect the composition of the entire edible portion in those cases where the original data referred to screened juice.



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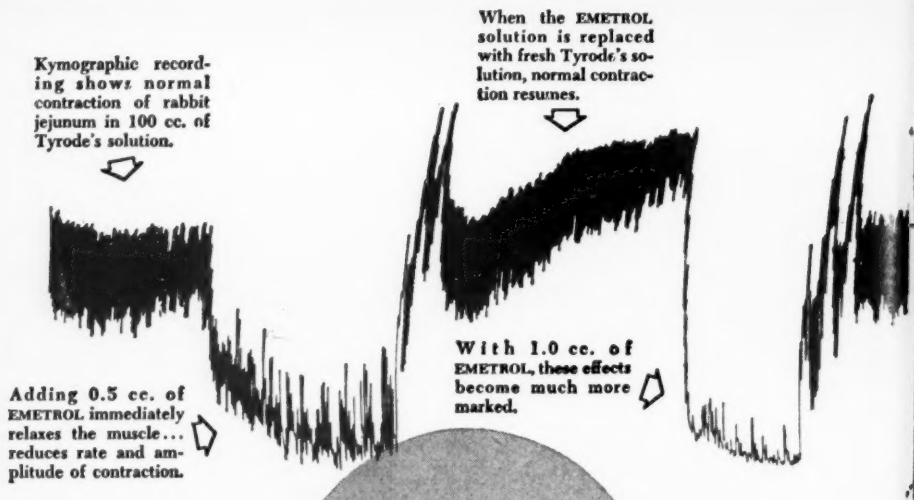

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EMETROL Phosphorated Carbohydrate Solution permits effective physiologic control of functional nausea and vomiting—without recourse to antihistaminics, sedatives, or hypnotic drugs.

Pleasantly mint flavored, EMETROL provides balanced amounts of levulose and dextrose in coacting association with orthophosphoric acid, stabilized at an optimal, physio-

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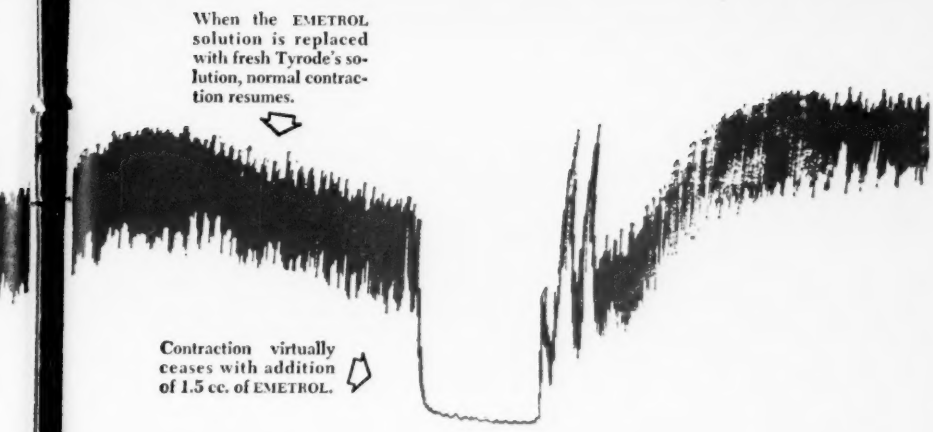

epidemic vomiting physiologically

logically adjusted pH level.

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SUPPLIED: Bottles of 3 fl.oz. and 16 fl.oz., at all pharmacies.

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TO PHYSICIANS ON REQUEST

Questions & Answers

All questions received will be answered by letter directed to the petitioner; questions chosen for publication will appear with the physician's name deleted. Address all inquiries to the Editorial Department, MODERN MEDICINE, *84 South Tenth Street, Minneapolis 3, Minnesota.*

QUESTION: A diagnosis of proliferative retinitis was made for a 44-year-old diabetic. The patient states that with a pair of binoculars he can read the number plates on cars as they pass. Would telescopic lenses aid this man?

M.D., Vermont

ANSWER: *By Consultant in Ophthalmology.* Telescopic lenses probably would help the patient's vision, but the limited field and weight of the spectacles make them unattractive to most individuals. If the man has proliferative retinitis, the vision probably will continue to deteriorate rather quickly so that binoculars would be of value for only a very short time.

QUESTION: How soon after a bilateral vasectomy may intercourse be had without prophylactics? The type of vasectomy performed is shown (Fig. 1).

M.D., Ohio

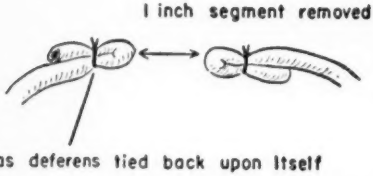


Fig. 1. Vasectomy done by Ohio M.D.

ANSWER: *By Consultant in Urology.* The length of time necessary for spermatozoa to disappear from the seminal fluid after a vasectomy is impossible to predict with any degree of accuracy. The safest policy

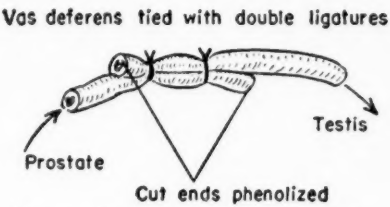
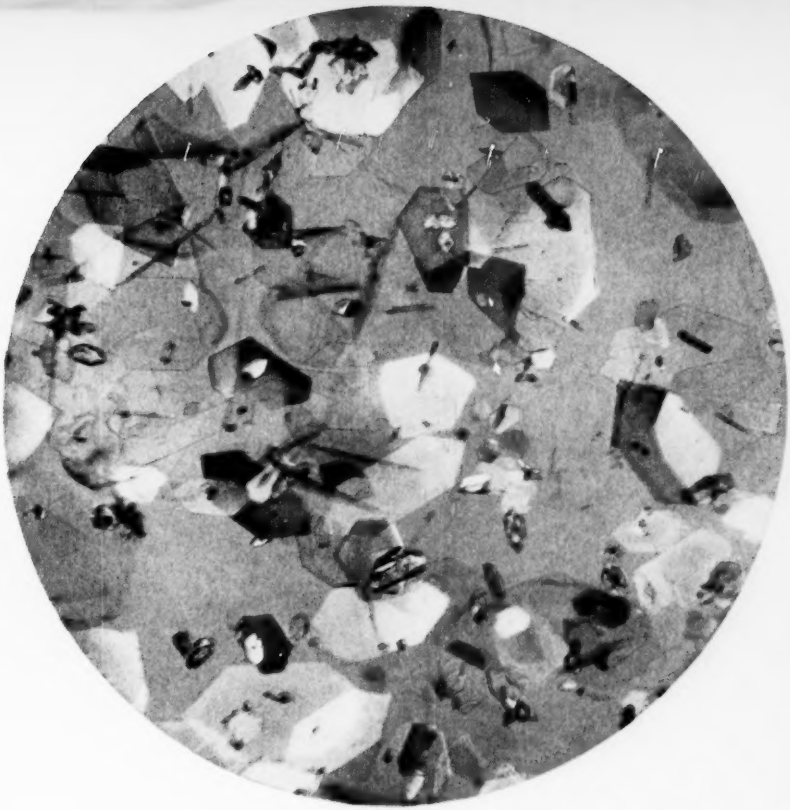


Fig. 2. Vasectomy recommended by consultant

is to have the patient use a condom for six weeks and then to examine a specimen of fresh ejaculate collected in a clean container, not a condom, for sperm before the patient is given the final word with certainty.

I do not believe the vasectomy pictured above is the best type for sterilization because the ligatures on the overlapping ends of the vas may cut through and reestablish the lumen. A better way, when vasectomy is being done for sterilization, is to remove a segment 1 in. long and then double the free ends upon each other and tie them, making no connection whatever between the cut ends (Fig. 2).



sulfathiazole crystals, magnification × 45

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You must see many patients like this one—who manifest nervous symptoms of anxiety. As Watts and Wilbur have said:

> "The understanding and sympathetic physician realizes that almost every patient who consults him is worried and anxious."
> J.A.M.A. *148*:704 (March) 1952

Most physicians try to understand the causes of such anxiety, so that they may intelligently reassure the patient. And, in many cases, the doctor will prescribe phenobarbital or a similar depressant drug.

But, all too often, the patient's anxiety is caused by, or associated with, an underlying depression. And, in such cases, sedation with barbiturates—although it calms nervous symptoms—also deepens the underlying depression.

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1 mg. Thiamine hydrochloride U.S.P.—0.4 mg. Riboflavin
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Compare its elasticity, strength, weight and contour conformity with the elastic bandage you are now using. Women, especially, will like its *natural* flesh color.

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Forensic Medicine

ARTHUR L. H. STREET, LL.B.

Prepared especially for Modern Medicine

PROBLEM: In a statutory workmen's compensation proceeding in New Mexico could the court allow claimant the amount of additional medical expense incurred without request that the employer furnish additional medical services and after the workman had returned to work and the employer had paid all accrued medical expense?

COURT'S ANSWER: No.

The New Mexico Supreme Court pointed out that medical bills are allowable in workmen's compensation proceedings only as provided for by statute (219 Pac. 2d 285).

PROBLEM: A doctor telephoned a county hospital, requesting that an ambulance be sent to convey a patient to the hospital as quickly as possible. The driver delayed the transportation for an hour by taking an indirect route to pick up another patient. The patient for whom the ambulance was first called died before the hospital was reached. Was the county liable in damages, under a statute making the state and counties liable for negligent operation of their motor vehicles?

COURT'S ANSWER: No.

The California District Court of Appeal, Second District, Division 1, declared that, under the general rule that negligence of employees in performing governmental functions will not render governmental agencies liable in damages, in the absence of statutory provision, the statute in question should be given strict interpretation in favor of the county (248 Pac. 2d 74).

PROBLEM: When prison authorities refuse to permit a prisoner to consult a physician beyond the prison confines, can a court compel that such permission be given if there is proof that the prisoner urgently needs treatment away from jail and is willing to pay for the therapy?

COURT'S ANSWER: Yes.

The New York Supreme Court, Special Term, Bronx County, decided that such judicial power exists apart from statute under the inherent power of courts to enforce equitable rights. But the court found that the particular case was governed by a New York statute, providing that if the jail physician and warden certify that a prisoner requires immediate medical or surgical treatment and that he should be removed to a hospital, a judge may direct such removal under custody of jail officials.

The particular case involved the right of a prisoner to be treated by his personal dentist, but the court discussed the broader legal aspects of the case. The court mentioned such possible needs as fitting artificial devices to aid locomotion, need for roentgenologic photogra-

(Continued on page 42)

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COBALT	0.1 mg.
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CALCIUM	37.4 mg.
IODINE	0.05 mg.
MANGANESE	0.033 mg.
MAGNESIUM	2 mg.
PHOSPHORUS	29.0 mg.
POTASSIUM	1.7 mg.
ZINC	0.4 mg.
VITAMIN A	5,000 U. S. P. UNITS
VITAMIN D	500 U. S. P. UNITS
THIAMINE HYDROCHLORIDE	2 mg.
RIBOFLAVIN	2 mg.
PYRIDOXINE HYDROCHLORIDE	0.1 mg.
NIACINAMIDE	10 mg.
CALCIUM PANTOTHENATE	0.33 mg.

With other B-Complex Factors from Liver

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phy, correction of vision, roentgen treatment, and a "multitudinous number of other cases."

"Certainly," said the court, "if a prison's scientific facilities do not enable its medical staff adequately to conduct physical examinations, or make accepted diagnostic tests, or construct and fit needed mechanical devices . . . removal of the prisoner to a modern hospital of adequate technological capacities . . . should not be thwarted merely because the required visit will be for several hours only. Neither the want for, nor the success of, medical science is necessarily measured by the length of the time of treatment."

The statute should be applied "in its broadest possible fashion to give a prisoner the urgently needed medical attention in whatever aspect that care might be required." It should not be read as limited to cases requiring direct bodily treatment or prolonged in-patient care.

However, whether the facts of a particular case show need for emergent treatment of a prisoner away from jail is a matter to be determined within the discretion of the judge. It was decided that the petitioner in this case had failed to prove such need. The prison was in the Bronx and the prisoner could secure adequate treatment in a prison ward at nearby Bellevue Hospital operated by the city. The court said that while it might be relied upon to see that a prison inmate receives proper care at all times, it should not be expected to "sanction outside jaunts . . . perhaps in the hopeful expectation" that they "might break the monotony or the rigors of his incarceration" (115 N. Y. Supp. 2d 810).

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Supplied as the DAINITE UNIT containing 48 Day Tablets and 18 Nite Tablets in a unique dispensing unit. Day and Nite tablets are also available separately, to simplify prescription and refill according to individual needs.

References: (1) Segal, M. S.: Springfield, Charles C. Thomas, 1950, p. 83; (2) Barach, A. L.: J.A.M.A. 147: 730-737, 1951; (3) Segal, M. S., et al.: Ann. Allergy 9: 782-793, 1951; (4) Bickerman, H. G., and Beck, G.: Personal Communication.

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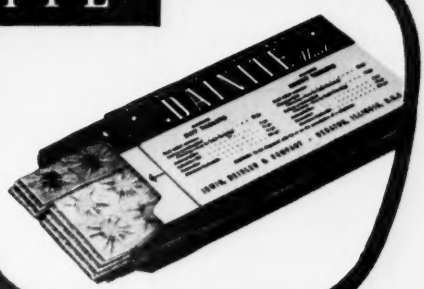
¼ gr.	Sodium Pentobarbital	½ gr.
3 gr.	Aminophylline	4 gr.
¼ gr.	Ephedrine HCl	
¼ gr.	Ethyl Aminobenzoate	¼ gr.
2½ gr.	Aluminum Hydroxide	2½ gr.
Give t.i.d.a.c.		Give at 10 P.M.



PROBLEM: A New York statute forbids a physician, dentist, or registered nurse to disclose information acquired in attending a patient professionally and necessary to enable the doctor or nurse to act in that capacity, unless the patient consents. Does the statute disqualify a doctor or nurse to institute a sanity inquisition, on the basis of observation of the patient's surroundings, companions, and so on?

COURT'S ANSWER: No.

A registered nurse, having been called to attend an elderly woman, later filed a petition for the appointment of a guardian, it being suspected that the patient was unduly dominated in business transactions by a companion. It was attempted to secure dismissal of the petition based upon information acquired by the nurse, within the meaning of the statute.

The presiding justice of the Special Term, New York Supreme Court for New York County, said: "The essential facts set forth in the affidavits of petitioner and the other nurses are not concerned with . . . treatment or information acquired as a result of treatment" and "any lay person . . . on the premises could have deposed to the same facts" (98 N. Y. Supp. 2d 361).

However, on appeal, the Appellate Division court dismissed the petition on the ground that the patient was of sound mind and suffering only from old age and a stroke from which she was recovering (98 N. Y. Supp. 2d 367).

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SULFATRYL granules contain equal portions of three most effective sulfonamides. Addition of 60 cc. distilled water to the prescription bottle quickly makes 90 cc. of a smooth, absolutely uniform suspension.

Uniform composition is the problem most commonly encountered with ordinary triple-sulfonamide suspensions. The solids may settle out, become impacted, virtually impossible to resuspend. Failure to shake the dispensing bottle well may result in inaccurate as well as inadequate doses. SULFATRYL granules overcome this basic problem. Each 90-cc. prescription is made up freshly, by adding 60 cc. of distilled water to the 42 Gm. of coral-pink, dry granules, which go at once into *fresh*, uniform suspension for immediate use.

Composition of SULFATRYL follows the Meth-Dia-Mer Sulfonamides (1:1:1) ratio with sodium citrate as a buffer. Each 5-cc. teaspoonful of the suspension contains 0.5 Gm. of an equal-parts mixture of the three sulfonamides:

Sulfadiazine	0.167 Gm.
Sulfamerazine	0.167 Gm.
Sulfamethazine	0.167 Gm.
Sodium citrate	0.500 Gm.

Sugar and flavoring agents, q.s.

Literature on request.

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Each Tablet Contains:

Phenobarbital . . . ½ gr.
Theobromine . . . . . 5 gr.

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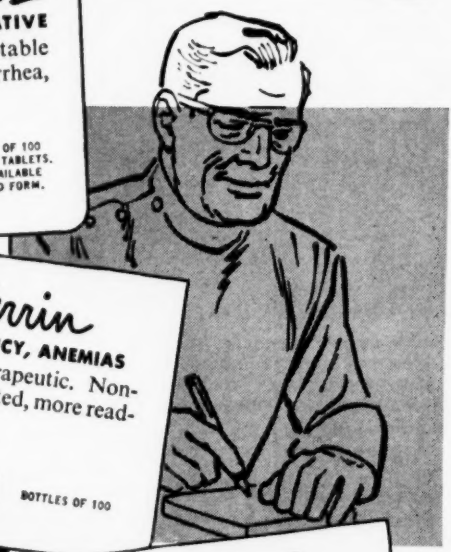
Powdered extract belladonna ⅙ gr. (Total alkaloids—.0021)

BOTTLES OF 100 AND 1000 TABLETS. ALSO AVAILABLE IN LIQUID FORM.



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Rx Purpasal-C

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EACH TABLET CONTAINS:

Sodium salicylate . . . . . 5 gr.
Vitamin C . . . . . 10 mg.
Para-Aminobenzoic Acid . . . . . 5 gr.

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Washington LETTER

Doctor Draft High on Congress' Priority List

THE opening of Congress, as expected, saw the reintroduction of most of the old familiar bills in the health fields, including some that have been centers of controversy for years. But for most doctors—certainly all under 51 years of age—the major issue this session, as it was for most of last session, is the doctor draft law, Public Law 337, passed by the 81st Congress in September of 1950.

With definitive action by Congress not far off, the essential facts about P.L. 337 are worth brief restatement.

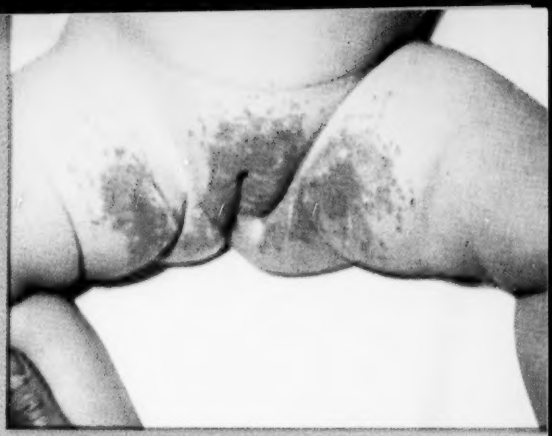
At the time the law was passed, it was not aimed at all doctors but at a small group who were under moral obligation to serve because the government had given them their educations during World War II or because their draft boards had deferred them so they could attend college at their own expense.

Now, just about all these men, Priorities I and II, are in service or have served their specified time.

But the need for military doctors continues, and the Army, Navy, and Air Force have no choice but to reach out into other groups of physicians and month by month call up the numbers required. Fortunately for the three services, the law put all physicians, except those below physical standard, under liability for call to duty. It also set up certain procedures to govern the order in which these men—mostly veterans of World War II or middle-aged doctors—would be called.

"*I* like *bicarbonate of soda.*"

Except for one factor, that would be the end of the story. The doctors might not like to be called or recalled, they might think the process was unfair, but there would be nothing they or anyone else could do about it. That one factor is the time limit set by Congress on the doctor draft law. It expires next July 1.



a

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healing...

soothing...

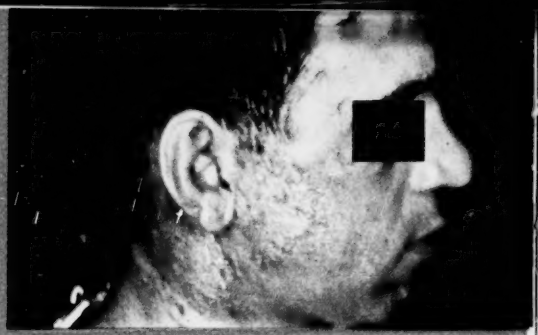
protective...

b

Vitamin A and D Ointment presents the natural A and D vitamins in a pleasantly fragrant lanolin-petrolatum base. It does not stain the skin.

a August 25. A typical case of diaper rash, characterized by excoriation and soreness.

b September 1. After only one week of local inunctions with Vitamin A and D Ointment each time diaper was changed, the skin surface is normal.



c

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healing...

soothing...

protective...

for burns,

fissured nipples,

bedsores, abrasions,

chafing, dry eczema,

traumatic lacerations,

pruritus and other

slow-healing lesions.

Supplied in 1½ oz. tubes.
16 oz. and 5 lb. jars.

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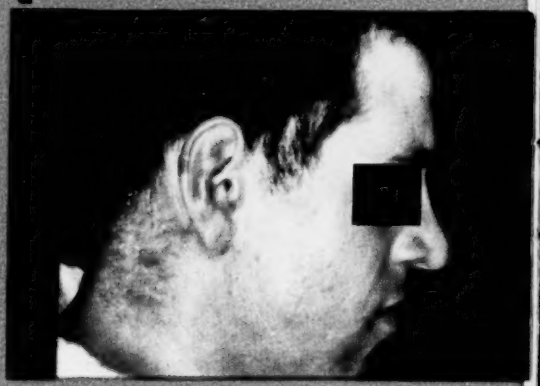
d



c

December 2. First and second degree burns caused by oxyacetylene explosion. Treatment consisted of daily application of Vitamin A and D Ointment.

d

December 9. Complete restoration of epithelium has occurred. Patient observed marked diminution of pain following application of Ointment.

unless extended. That explains the high priority the doctor draft problem has in this Congress. It explains the months of debate, argument, and bickering that involve the medical profession, House and Senate committees, and the Armed Forces.

At its December meeting in Denver, the American Medical Association checked the problem back to the military. The Association withheld, temporarily at least, its support of a doctor draft extension until the military officials could show that they were doing the best possible administrative job with medical personnel, particularly regarding [1] lower physical standards for military doctors, [2] less care for civilian dependents of uniformed men, and [3] use of civilian physicians on a contract basis.

The military reacted by drastically reducing standards. In general, the new policy is to commission a man if he is healthy and active enough to carry on a civilian practice. For many reasons, it was not so prompt in complying with other requests from the AMA.

But not all the complaints about P.L. 337 came from the physicians and the dentists and veterinarians, who also are covered by the law. Defense Department protested that it couldn't maintain a high standard of medical care if it had to depend entirely on Priority III for any length of time—too many men in their middle or late 40's.

So Defense Department is proposing a revolutionary new approach to the problem. It would set a cutoff age—not definitely established at this writing, but expected to be somewhere between 36 and 41 years. Men beyond this age

(Continued on page 52)

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AND AUTOCLIPS*

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FASTER APPLICATION, POSITIVE ACTION—Based on the standard Michel technic, the Autoclip Applier is fast and positive. Autoclips can be applied to the skin as rapidly as the edges of the wound can be proximated ...the surgeon can concentrate on the actual closure. Cosmetic results are better.

FOR EMERGENCIES—The compact Applier weighs only two ounces—can be carried loaded and sterile in your bag always ready for use. When using the Autoclip Applier, nursing assistance is not required. The Autoclip Applier holds 20 Autoclips—(18mm.). Autoclips are double wound clips; fewer are needed.

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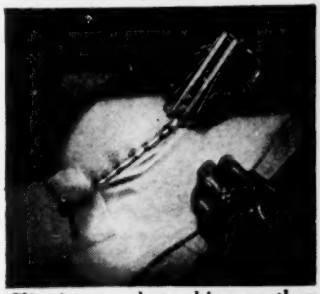

Clipping towels to skin—another important use for Autoclips.

would not be called; barring a change in the law, they would not be vulnerable for compulsory service. After this, only two factors would be considered in establishing order of call or recall: [1] age, with the youngest to be commissioned first, and [2] prior military service, with veterans called in the inverse order of their months or years on active duty.

The Magnuson Report

Also attracting much attention in Washington these weeks is the report of the President's Commission on the Health Needs of the Nation, whose complex and comprehensive recommendations are being worked into form for presentation to Congress as legislation.

At this writing, Eisenhower has not yet declared himself on the suggestions of the Commission, which spent a year in gathering and drafting the report. However, if weight is to be given to campaign speeches, the General is interested in seeing something done to improve the quality and quantity of medical care.

The following statements, although taken out of context, are evidence that the new President is troubled by the same deficiencies in health care that concerned Chairman Paul Magnuson and other members of the Commission:

> It is morally and economically wrong to ignore the health problems of those who cannot pay the cost of adequate medical care. . . . Too many of our people live too far from adequate medical aid; too many of our people find the cost of adequate medical care too heavy.

But Gen. Eisenhower, even while appealing for votes, was emphatic

(Continued on page 56)

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CINBISAL *is supplied in bottles of 100 and 1000 tablets. (Engestic® coated green.) Samples on request.*

IN ACUTE CASES—medical management includes two tablets Cinbisal (equivalent to colchicine 0.5 mg. and sodium salicylate 0.6 Gm.) every hour until pain is relieved, unless gastrointestinal symptoms appear. (Eight to ten doses are usually sufficient.)

TO PREVENT RECURRING ATTACKS—one or two tablets every four hours.

McNEIL LABORATORIES, INC. Philadelphia 32, Pa.

1. Comroe, B. I.: Arthritis and Allied Conditions, Philadelphia, Lea & Febiger, 1949, p. 734.
2. Ibid, p. 735.

in his opposition to socialized medicine or national compulsory health insurance—a stand paralleling that of all but two or three members of the commission. He said:

> Federal compulsion, with our health supervised under a Washington stethoscope, is not American and it is not the answer. Instead of more and better medical care, it would give us poorer medical care.

Then, in the same speech, at Salt Lake City in October, he outlined some of his own ideas, which certainly are not in opposition to some ideas of the President's Commission. He declared:

> The answer is to build up the system of voluntary non-profit health insurance plans which our people have already developed at an amazing rate. Starting from scratch hardly more than a dozen years ago, hospital insurance has expanded until it covers more than 86 million people and is still expanding. More than 65 million are insured for surgical expense.

But, as sure evidence that Pres. Eisenhower isn't satisfied with things as they are, there is this quotation:

> Neither the existing private health insurance nor the administration's proposal for national socialized medicine covers all the people. Neither provides adequate protection. For example, no one has yet found a way to insure against a serious illness which is . . . catastrophic for the entire family concerned.

So it is unlikely that the new administration is prepared to throw the whole report of the Commission out the window although, as the American Medical Association has, it may find that some suggestions are uncomfortably close to national compulsory health insurance.

If of no more lasting value, the report certainly is a massive physical achievement in the collecting, abstracting, and condensing of millions of words of testimony from hundreds of witnesses whose philosophies reflected every color in the political rainbow. Furthermore, unanimous recommendations were reached on all but a few questions; there was no minority report; in a few instances Commission members entered dissenting views.

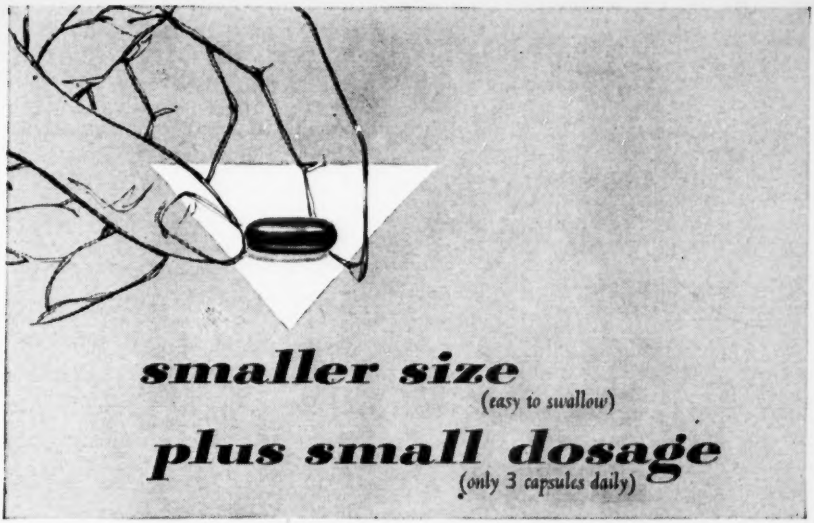
The report had something to say about almost every area in the field of national health—research, administration, financing, hospitalization, methods of practice. It proposes doubling the amount of money set aside annually by the federal government for its own medical research as well as for research grants. The commissioners thought that Congress should spend on hospital construction at least twice as much as has been appropriated the last two years, with emphasis on small hospitals and diagnostic clinics.

The commissioners were unanimous in agreeing that federal legislation should be passed to help finance local public health departments. They did not hazard a definition of the proper function of a public health department, the issue on which bills have been tied up during the last two Congresses.

Step by step, from the President's cabinet to the country practitioner, here are other changes favored by the Commission:

- A federal Department of Health and Welfare, represented in the

(Continued on page 61)



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Pyridoxine hydrochloride	0.6 mg.
Calcium pantothenate	3 mg.
Folic acid	1 mg.
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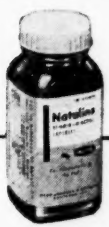

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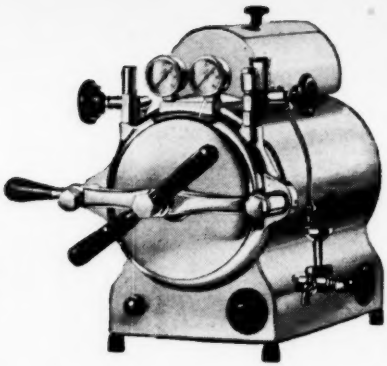

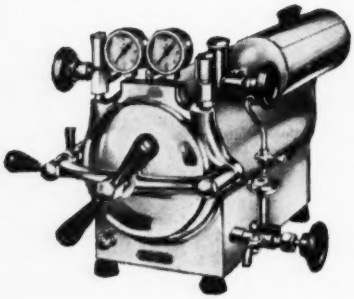

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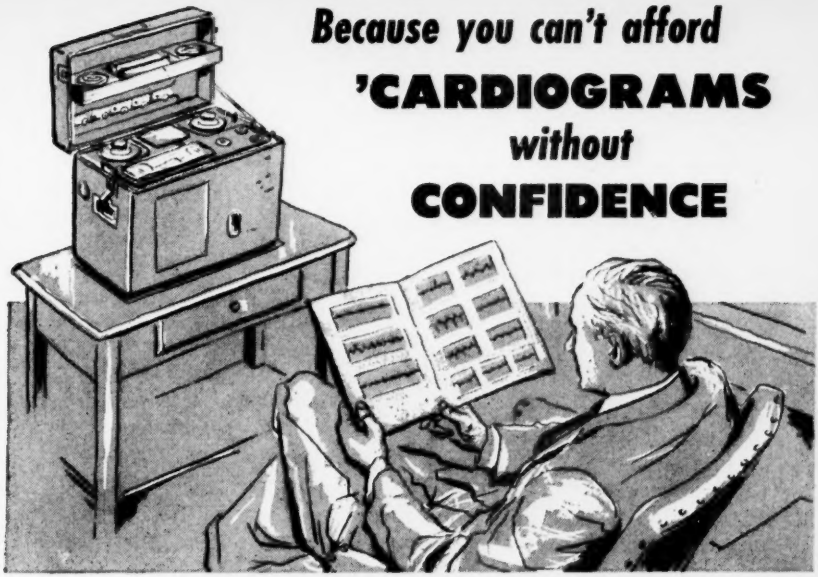
President's cabinet by a secretary. For years government departments and professional associations have wrangled over this point. The closest approach to a compromise is the bill now before Congress for a federal board of hospitalization, with considerable indirect power to eliminate overlapping and improve efficiency of U. S. hospital programs. Certain to oppose this suggestion is the American Medical Association, whose longstanding program calls for a federal department of health, unencumbered by such functions as social security, education, and the like.

- A permanent commission on health, with responsibility for advising the President and Congress on all health matters. Doctors and other professional personnel could not make up a majority of the commission; none of the members could be government employees, either state or federal.
- That the federal government channel money to states to strengthen and expand voluntary health insurance programs. This is probably the most revolutionary proposal. Underlying this and other parts of the report is the Commission's conviction that comprehensive hospital-surgical-medical insurance ultimately can and should be extended to virtually every American.

Under this program, each state's share of federal funds would be determined by a formula taking into account per capita income as well as population. The poorer states would get more money, as under many federal programs now in operation. The state health authority could use the funds to blanket sparse population areas with subsi-

(Continued on page 64)



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dized health plans and to encourage more and more benefits. Also, U. S. grants would be utilized to help communities set up group-practice clinics linked to prepaid plans.

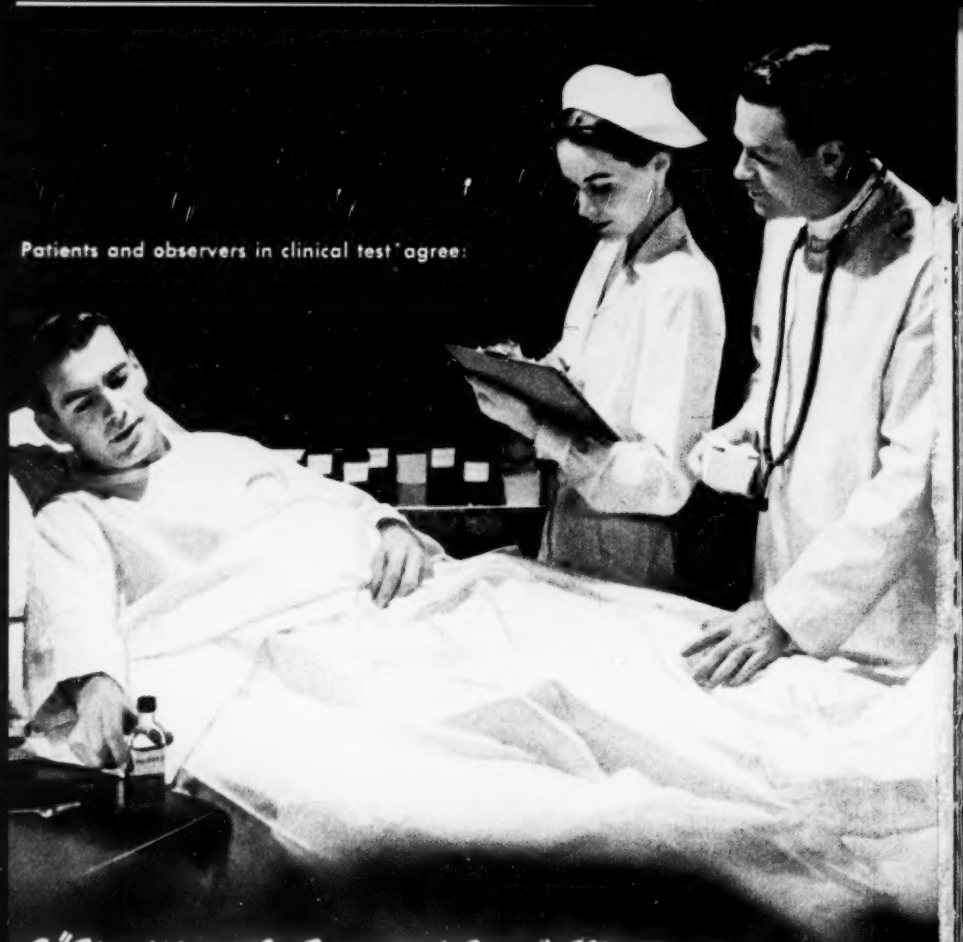
It was in this connection that the Commission practically immediately aroused the antagonism of the American Medical Association. The Commission proposed that all persons receiving federal Old Age and Survivors Insurance benefits be given prepaid health insurance policies, the premiums to be paid from payroll deductions on employer and employee through OASI machinery. AMA sensed in this payroll deduction proposal the possibility of socialized medicine.

Another proposal—one long desired by Blue Cross and Blue Shield—would permit federal employees to have health insurance premiums deducted from their payrolls, something now forbidden by federal regulations.

- The Commission had separate recommendations for the general physicians and the specialists. Hospital facilities would be extended to all general practitioners, and the federal government would take the lead in determining ways to improve their education, training, and finances. Specialists would be encouraged in every way to participate in group practice.
- In population-sparse areas, regional health authorities, underwritten by prepaid health insurance plans, would be set up to make best possible use of whatever facilities are on hand and to develop more facilities.
- Although clinics, diagnostic centers, rest homes, and nursing homes would be developed into a nationwide network, the large hospital would be of greater rather than less importance. The Commission believes that these should be built up into medical centers, from which "preventive treatment, diagnostic attention, rehabilitation and home care services could radiate to the entire community."
- On federal assistance to medical, dental, and nursing schools, the commissioners came to a blunt and unequivocal opinion: Unless these institutions receive substantial federal help, and soon, there won't be enough trained professional personnel to protect the nation's health. Apparently the Commission would attach no strings at all to the federal grants.

The Commission members decided that Congress should redefine the federal government's responsibilities for the care of nonservice connected cases in Veterans Administration's hospitals; such cases usually make up two-thirds of all VA patients. The report also proposes that Congress look into the controversy over care of military dependents. The Commission suggests that prepaid plans be used, rather than physicians in uniform.

The Commission's statisticians estimated that the extra services would cost the federal government a billion dollars a year more, for a total of $2 billion on health programs. Costs to state and local governments are not estimated, but because of the matching requirement would total at least another billion.



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*Cass, L. J. and Frederik, W. S.: Am. Pract. and Digest of Treat., 2:844, 1951. Report of blind test on 52 hospitalized patients.

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Freed, S. C. and Mizel, M.—Annals of Internal Medicine, Vol. 36, No. 6, June 1952.

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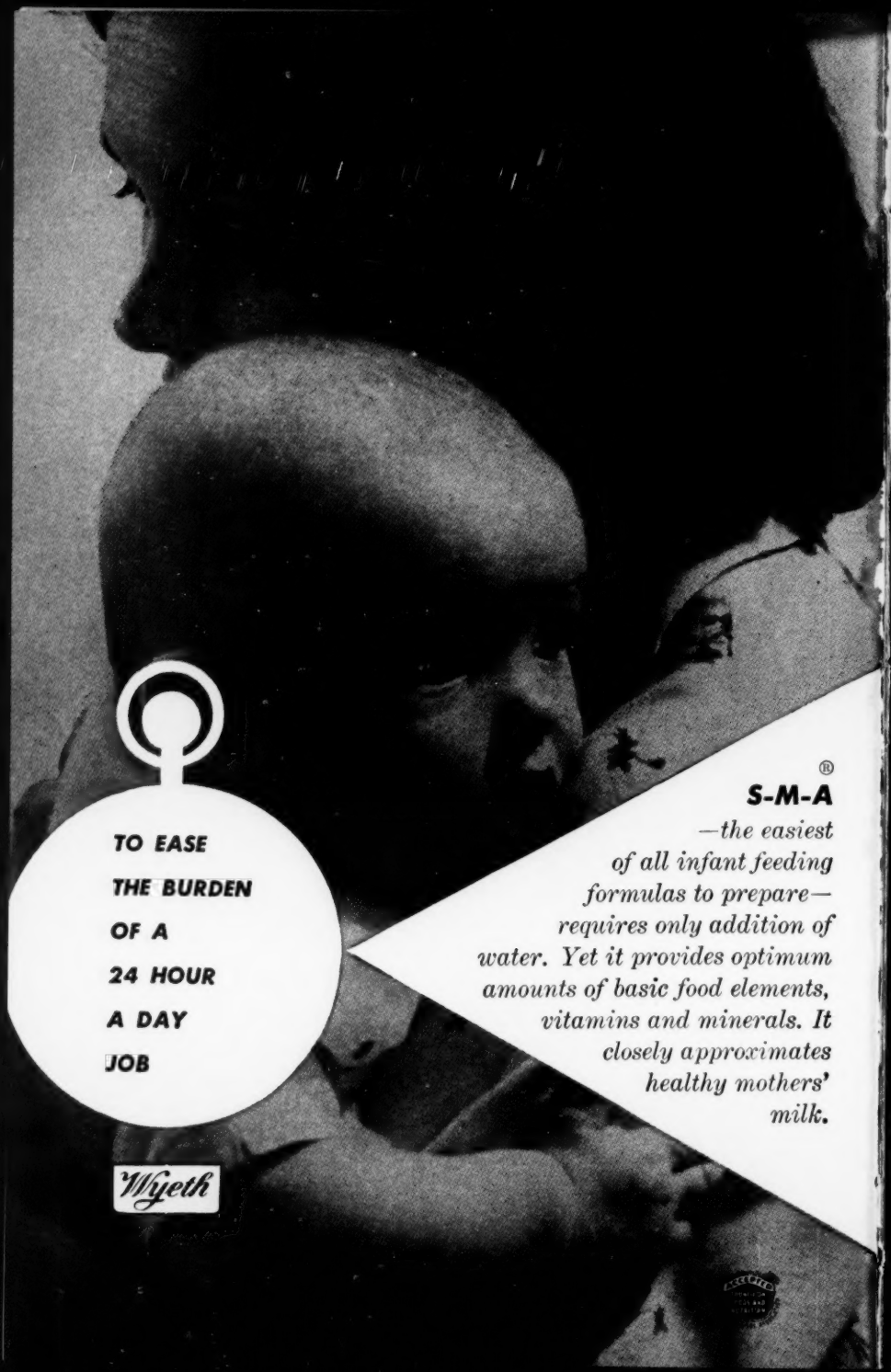
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MODERN MEDICINE
THE JOURNAL OF DIAGNOSIS AND TREATMENT

Stellate Ganglion Block

of dubious value for stroke

A Modern Medicine Editorial

Because of glowing reports in the lay press of the results of stellate ganglion blocks, relatives of a patient who has just had a stroke may demand that a block be tried. Unfortunately, the relatives have no idea of the dangers attending the procedure.

These dangers are not to be minimized, state Drs. William V. Trowbridge, Allan E. Bayless, and John D. French, who say:

> Indeed, complications arising from stellate block may at times present a problem more serious than the effects of a mild cerebral vascular insult! . . . Damage to any of these structures [important blood vessels and nerves] during the mechanical introduction of a local anesthetic agent may produce serious consequences.
>
> Death may result from puncturing the carotid artery or from injecting the anesthetic directly into the carotid or the vertebral or subclavian artery. Such injection can produce a sudden stoppage of respiration or paralysis of the glottis. Death also may occur from the anesthetic getting into the subarachnoid space.

It would be bad enough to make a patient run all these risks if everyone agreed that the stellate block would probably improve his chances of recovering from a cerebral hemorrhage. Actually, one could easily argue that the last thing one should do for a man with a recent cerebral hemorrhage is to try to open up his brain arteries. Hence, perhaps, it is fortunate that according to the men who have measured the circulation of the brain, *a stellate block has no influence on cerebral blood flow.*

WALTER C. ALVAREZ

Paradoxes in Psychosomatic Medicine

Often we physicians might well stop to wonder why a man or woman who appears outwardly calm and sensible and well-controlled, without worries or unhappinesses or overwork, can have a serious neurosis or get flare-ups in a disease, such as migraine or peptic ulcer or hypertension, which may be influenced by mental storms.

I remember a young man who, after a series of stormy interviews with his wealthy father, had a bad ulcer. The father was trying to make him settle down and go to work. The ulcer became so troublesome that the man was operated on, and for a year or more was all right. Then, after another nervous storm, he had a bad flare-up. Then he joined the Marines, went overseas, and fought his way up a number of beaches in the South Pacific. During all this time he was comfortable. He ate everything and had no pain.

Upon leaving the service he married and was very happy. His father died and left him a large fortune; he had nothing to worry about. But, after a few years, he again had symptoms of ulcer, more severe than any he ever had before. He had to take food every hour. Two questions then arose: [1] Why didn't he have trouble with his ulcer during the time when, daily, he faced death? [2] What was the nervous strain that later so activated the ulcer?

Answering the first question, he said, "I think I had no trouble with my ulcer during the war because I had no responsibility then; I just did what I was told. In the past what has always wrecked me has been responsibility and the need for making decisions."

The answer to the second question appeared to be that because he had neglected his father's splendid business it had gone into bankruptcy and had had to be wound up. The man then began to feel tremendous qualms of conscience. He felt every day that he had been a failure and not his go-getting father's son. Every hour of the day his inner self was scolding him, and because of this he suffered constant torture. Naturally, under the circumstances, it was not easy to help him.—W.C.A.

Elements of *Psychotherapy in General Practice*

A SPECIAL EXHIBIT

From a presentation by Richard L. Jenkins, M.D., Veterans Administration, Washington, D.C., at the American Medical Association Convention, Chicago. Adapted by Inga Platou

Fear arises from external threat to the body. We know that it sets off a chain of autonomic and hormonal changes which speed the heart, elevate blood pressure and blood sugar, and prepare prompt efficiency in the arduous efforts of Fight or Flight.

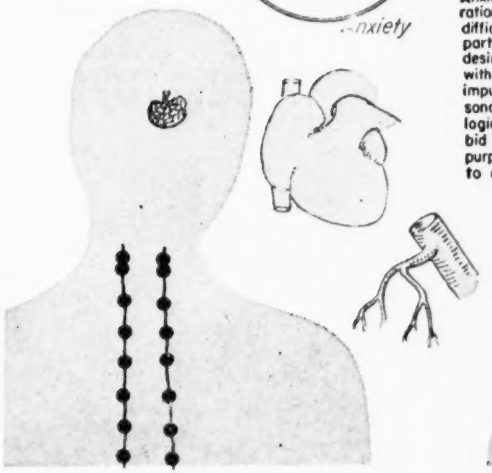
Fight

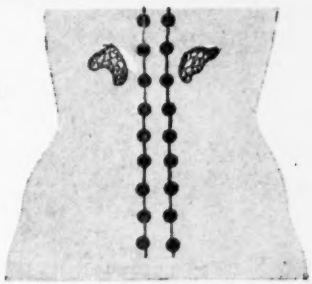
Only man has evolved chronic anxiety — the haunting, formless fear based on inner tension in which man knows not what he fears but is afraid.

Anxiety

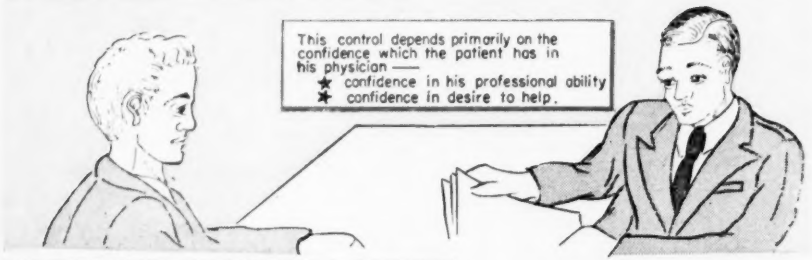
Flight

Anxiety arises from internal threat to the integration of the mind. A common source is the difficulty man has in either accepting as a part of himself or in confidently controlling desires or impulses which are in disharmony with his concept of himself. Such desires or impulses threaten disintegration to the personality and may touch off the same physiological alarm-responses as does fear. In morbid anxiety these reactions serve no useful purpose and their chronic repetition may lead to disorders of normal body functions.





The sick person is usually fearful or anxious, and these emotions tend to be inimical to his recovery. Psychotherapy in general practice begins with the control of fear and anxiety.



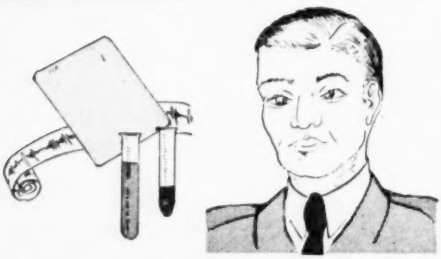
This control depends primarily on the confidence which the patient has in his physician —

- ★ confidence in his professional ability
- ★ confidence in desire to help.

★ The patient is not likely to need reassurance about his professional competence.

★ Doctor's human interest in him is of utmost importance.

This may be particularly true of a patient who has special psychological problems, as he is likely to have a distorted and uncomplimentary picture of himself, which may make it difficult for him to believe that anyone can really be interested in his welfare or regard it as important.



Other patients are worried about problems they face, and this worry tends to retard recovery from many disorders which come to the attention of the general practitioner. Talking a problem over may put it into perspective and reduce it to more manageable proportions.

The patient should meet an understanding attitude but so far as possible should come to his own decisions as to his own course.

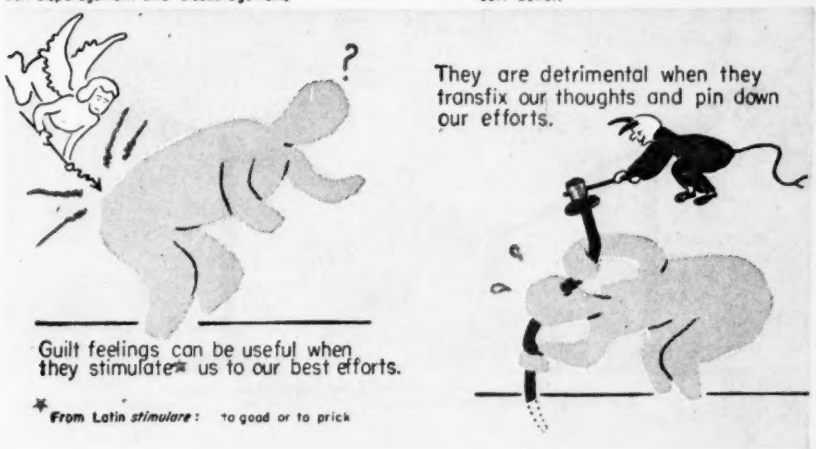
The neurotic patient especially is typically torn by desires or impulses of which he is not fully conscious.

Example: Suppressed resentment toward parental figures whom we feel we should not resent may get us all knotted up inside.

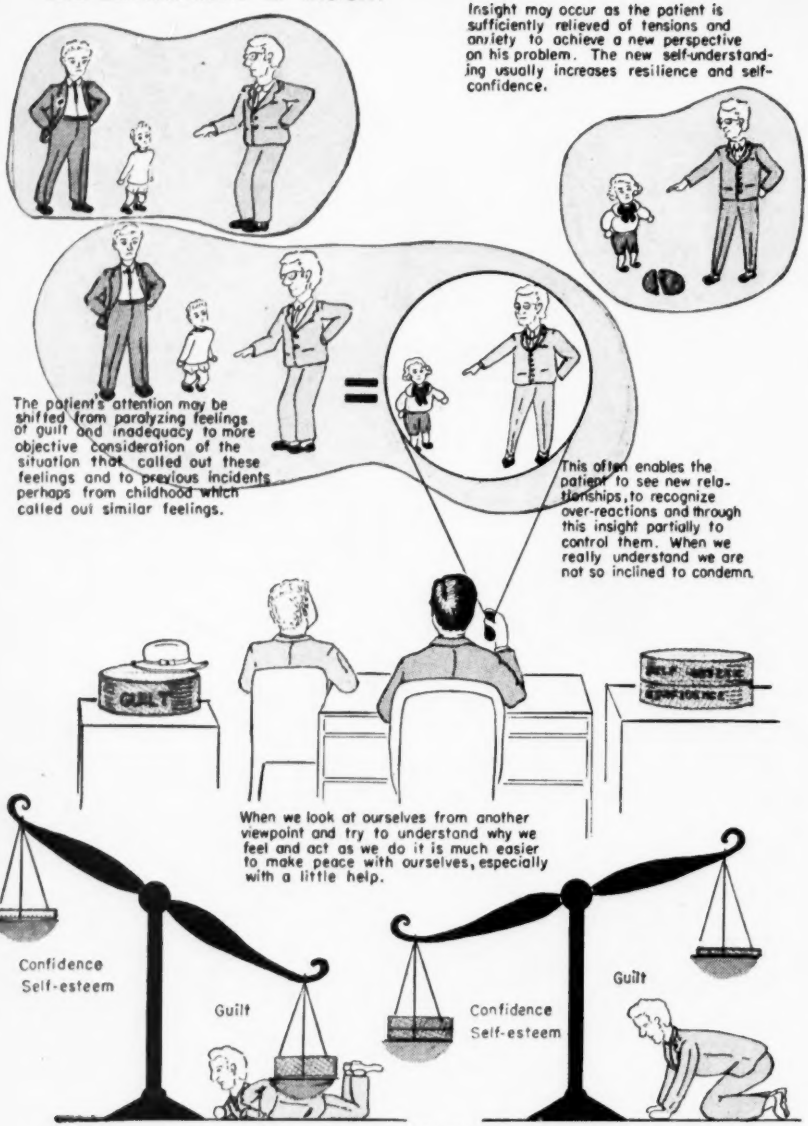
Talking the matter over may help undo the knots and reduce the problem to more manageable proportions.

The tension of excessive reactions of guilt or unfulfilled responsibility may lead to crippling feelings of self-disparagement and discouragement.

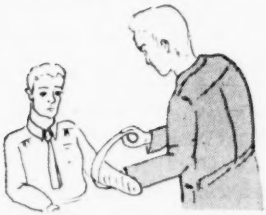
The sense of human personal understanding by the physician may be of crucial importance to the patient in restoring a measure of self-belief.



THE DEVELOPMENT OF INSIGHT



Authority changes its significance for all of us depending upon the situation. In moments of necessity a patient may find protection and reassurance in the authority of his physician but as the patient improves he comes to want to decide his life for himself and the role in which he sees his doctor may change.



The physician should be able to give support when it is needed and to turn decisions back to the patient whenever it is preferable. He may win more cooperation by presenting the alternatives than by reliance upon authority.

Sometimes the patient may find the prospect of return to health and work harder to face than continued illness.

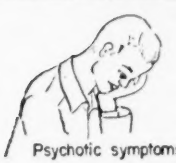
A significant element often needed is to aid the patient to recognize and accept a more balanced program of living.

A pep talk, admonition, or curtain lecture directed at the patient is not likely to afford real encouragement.

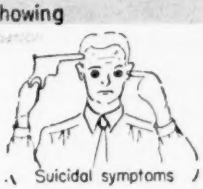
An understanding consideration with the patient of his problem — real or fancied — is more likely to contribute to the desired result.

General practitioner refers to psychiatrist patients showing

Such referral should be so interpreted to the patient as an opening door to help.



Psychotic symptoms



Suicidal symptoms

Dangerous tendencies

Well-marked psychoneuroses

No response to treatment

This is an integral and inseparable part of the PRACTICE of MEDICINE

An essential measure in therapy of patients with congestive heart failure is detection and correction of hypoglycemia.

Hepatic Hypoglycemia in Heart Failure

SHERMAN M. MELLINKOFF, M.D., AND
PHILIP A. TUMULTY, M.D.
Johns Hopkins University, Baltimore

WEAKNESS, irrational behavior, and unconsciousness in congestive heart failure are caused far more often by low blood sugar than is commonly known.

Hypoglycemia may result from any circumstance that interferes with liver function. If the condition is misunderstood and therapy neglected, death may be hastened or the brain injured beyond repair.

At the first hint of deficiency, blood should be withdrawn for a sugar determination. Small doses of concentrated glucose solution are then injected intravenously, both in treatment and as a simple test. The diagnosis is confirmed by sudden improvement.

Sherman M. Mellinkoff, M.D., and Philip A. Tumulty, M.D., encountered 20 instances of hypoglycemia brought on by liver dysfunction of various types. Chronic passive congestion with heart failure, viral hepatitis, and Laënnec's cirrhosis were responsible for 5 cases each, biliary cirrhosis and fatty infiltration for 2 apiece, and primary hepatoma for 1. Hypoglycemic episodes were generally misinterpreted at first and occasionally proved fatal.

No nonhepatic causes of sugar depletion were evident during life or after death. No signs of pituitary, adrenal, or thyroid insufficiency appeared, nor could overexercise, starvation, or reactive hypoglycemia have been responsible.

Of 13 autopsies performed, all showed diffuse hepatic lesions but no hypoplasia or adenoma of the islands of Langerhans.

The mechanism of hepatic hypoglycemia is not clear; however, any of 3 metabolic functions may be involved. The liver is perhaps unable to store glycogen, so that levels are reduced by fasting. Breakdown of glycogen may be defective, as in von Gierke's disease. Possibly glucose cannot be formed from noncarbohydrate precursors.

Diagnosis is difficult for a number of reasons. Types and degrees of the underlying liver involvement vary. Some patients have advanced disease, others only minor symptoms, and at times, low blood sugar is the first clue to hepatic damage.

Manifestations of hypoglycemia are nonspecific. A slight deficiency causes weakness, sweating, nervousness, and palpitation; more severe states may result in psychosis, convulsions, or coma. In a complicat-

Hepatic hypoglycemia. New England J. Med. 247:745-750, 1952.

ed setting, symptoms may be confused with those of other diseases or entirely overshadowed.

In some cases, hypoglycemia appears as liver damage progresses; in others, during sudden stress, while the level of hepatic dysfunction is fairly stable. The precipitating factor may be an alcoholic debauch, acute infection, or a surgical procedure.

Severity of attacks is not consistently related to the blood sugar level or to the apparent degree of hepatic injury.

Occurrence during heart failure with longstanding chronic passive congestion of the liver deserves special attention. Because loss of appetite and malnutrition are very common, low blood sugar must be looked for and corrected as a part of routine management of hepatic hypoglycemia.

Prolonged Hyperglycemia in Diabetics

HENRY J. JOHN, M.D.

HUMAN beings may have considerable hyperglycemia for long periods with no obvious deterioration in pancreatic function though this is not true in cats. Since diabetes in man is more complex than in animals, experimental results with animals must be interpreted cautiously.

Internal secretions of other endocrine glands act counter to insulin. Possibly after middle age the opposing factor is on the wane, so that effects of insulin seem more pronounced.

According to reports published in 1943, hyperglycemia lasting more than three months in cats damages the islands of Langerhans, causing permanent diabetes. The longer the duration of high blood sugar, the more extensive the destruction. But if hyperglycemia is controlled within three months after induction, islands are restored.

Henry J. John, M.D., of Cleveland observed 7 diabetic persons with blood sugar elevated most of the time in periods of fourteen to thirty-seven years. Yet insulin dosage could be reduced toward the end in 3 instances, remained stationary in 2, and in only 2 was slightly increased.

Hyperglycemia was estimated by blood samples obtained before each meal, not by the unreliable index of glycosuria.

Values of 200 to 300 mg. per 100 cc. were not unusual. In some instances, blood pressure remained normal, no arteriosclerosis or retinal hemorrhages developed, and general health was good most of the time. Hyperglycemia was apparently tolerated without loss of carbohydrate tolerance.

Up to four decades of hyperglycemia in diabetics without loss of carbohydrate tolerance. Metabolism 1:400-412, 1952.

Adolescence entails special problems of protein, mineral, vitamin, and iodine requirements.

Nutritional Problems of Adolescence

CARL C. FISCHER, M.D.
Hahnemann Medical College, Philadelphia

THE period between childhood and adulthood is frequently one of medical neglect. Many of the problems of this age group are related to nutrition and, because of the great variations among adolescents, individualization of therapy is the keynote.

The parents often feel that medical supervision is not as essential for adolescents as for infants and children. Likewise, many physicians who encourage periodic examinations during earlier years do not do so in this equally important period. Many teenagers refuse to go to a pediatrician and, in changing to an internist's care or that of the family doctor, break the continuity of medical supervision. Others consult no one unless actually ill.

The rate of growth is extremely rapid during adolescence, but varies greatly for individuals even of the same chronologic age. Height increments increase, usually for girls from about 9 to 12 years, then drop gradually to maturity. Boys show similar growth increase about three years later. Weight increases at somewhat the same ages. At about 13 the amount of gain for the boys passes that for the girls.

The basal metabolic rate ordinarily has a prepubertal rise and a postpubertal fall. Because of unusually strong individual variations at this age, 20% plus or minus is accepted as within normal limits. As a rule, the total caloric requirements are about 1.9 times the basal requirements.

Nitrogen storage usually increases during early puberty and then decreases steadily to the end of adolescence. If care is not taken, the drop may accelerate until the nitrogen balance is negative. For adolescents, 15% of the total calories in proteins, 90 to 120 gm. of protein daily, is usually ample. The following daily items will supply the protein needs: 1 qt. of milk, 1 egg, 2 slices of bacon, 1 serving of cheese, and 1 liberal portion of meat.

Calcium retention parallels nitrogen retention. The optimum total daily intake of calcium is 1.5 gm., which is contained in the protein foods, including 1 qt. of milk, mentioned above and the usual accessory fruits and vegetables. To utilize this intake properly, about 1,000 units of vitamin D daily is necessary.

With diminished nitrogen-calcium balance and decreased resistance, increased rates of reinfection

Nutritional problems in adolescence. Am. Pract. 3:968-972, 1952.

types of tuberculosis are more likely. Chest roentgenograms should be made at least yearly for adolescents.

About 15 gm. of iron daily is needed, best supplied by dietary means. When not present in vegetables or fruits, iodine may be supplied adequately in iodized salt; 100 μg. is the normal daily need.

Subclinical vitamin deficiency is quite common during adolescence. Recent estimated vitamin requirements are as follows:

Vitamin A	3,000 to 6,000 I.U.
Vitamin D	1,000 I.U.
Thiamin	1 to 1.8 mg.
Riboflavin	0.88 to 1.32 mg.
Ascorbic acid	80 to 100 mg.
Niacin	10 mg.

Obesity in the adolescent leads to many psychologic problems; whether the reverse is often true is questionable. Obese adolescents frequently try to reduce by diets which are inadequate and unsound. Ideal treatment includes a low caloric intake high in protein, calcium, and vitamins. The protein consumption should be about 20% of the total calories. Complete cooperation of the child is required. Short-term use of such drugs as Dexedrine sulfate to curb excessive appetite may be indicated.

The basal metabolic rate is especially unreliable in cases of obesity, so a low reading is not necessarily an indication of hypothyroidism. Since thyroid extract acts as an anabolic drug, a further increase in appetite may be caused if administered to an obese child, resulting in increased overweight.

Dentists report a sharp increase in dental caries in adolescence. Adequate calcium and vitamin D, avoidance of sweets, cleansing of teeth after eating, and water fluoridation are recommended.

Hypothyroidism should always be suspected when a child who has done well in school begins to lag behind, lose interest, tire easily, and have definitely delayed growth and development. Generally only small quantities of thyroid, ½ to 1½ gr. daily, are needed. The thyroid may be omitted every fourth week to stimulate endogenous secretion.

Slipped epiphyses and osteochondritis occur frequently during adolescence. Due care and attention to an adequate diet are important in prevention as well as cure.

¶ TULAREMIA-INFECTED MUSKRATS may be the source of the disease in human beings more frequently than has been supposed. Agglutination tests for *Bacterium tularense* revealed 9 definite and 4 suspected cases in the Montezuma swamp area of New York. The source of infection for all but 1 of the persons was ascribed to infected muskrats. Walter C. Levy, M.D., of the New York State Department of Health, Syracuse, believes that the ailment should be considered or tentatively diagnosed when febrile illness occurs in persons occupationally concerned with muskrats as trapper, fur dealer, or handler.

New York State J. Med. 52:2620-2623, 1952.

Reasonably stable alcoholics who take Antabuse for at least eight months may establish a sobriety pattern.

Antabuse and Alcoholism

ROBERT C. LARIMER, M.D.
University Hospitals, Iowa City

RESULTS of the use of tetraethylthiuram disulfide for treatment of alcoholism compare favorably with those of other forms of therapy.

After a two and a half year study of 193 alcoholics to whom the drug (Antabuse) was given, Robert C. Larimer, M.D., concludes that prolonged aggressive follow-up is necessary for success of the treatment.

At the first visit the patients—all outpatients—complete a casual history, the Cornell Medical Index, and the Phipps-Alcadd questionnaire. Blood is drawn for cell counts, nonprotein nitrogen, bilirubin, and sugar determinations; urine is obtained for analysis; and a physical examination is made.

The actions of Antabuse are outlined and the patient is encouraged to discuss, in a group of other patients, his motivation for treatment. Individuals who seek help only because of pressure from others, such as wife or employer, are not accepted as patients because motivation is inadequate. Conditions which make Antabuse therapy dangerous are diabetes; cardiovascular, hepatic, and biliary tract disease; and cerebral dysrhythmia.

If therapy is considered feasible, the patient is given a supply of tablets to take during the next week.

One week later the patient returns with a favorite alcoholic beverage, 2 qt. of beer or 10 or 12 oz. of distilled liquor, for an observed reaction. This session is held in the hospital with a nurse in constant attendance and a therapist present intermittently to give reassurance and explain phases of reaction to the patient so that awareness of symptoms is increased. The usual emergency drugs are on hand, as well as ascorbic acid and saccharated iron, either of which given intravenously will abort the reaction almost at once at any stage.

Thereafter, patients return to the clinic every two weeks for six weeks and then every month. During these brief visits the patient is encouraged and given psychologic support and the dosage of Antabuse is regulated. Blood and urine studies are repeated yearly. Participation in Alcoholics Anonymous is urged.

Within five or ten minutes after taking alcohol, an individual who has been taking Antabuse notices a flush starting in the face and spreading over the trunk and extremities for fifteen or twenty minutes. Concomitant signs are pronounced drop in blood pressure, tachycardia, palpitation, and dysp-

Treatment of alcoholism with Antabuse. J.A.M.A. 150:79-83, 1952.

nea. The patient becomes somnolent and may have a violent headache or vomit. Sleep follows, perhaps accompanied by myoclonic twitching. During sleep the blood pressure rises and the skin becomes pale and cold. After about an hour, the patient awakens and vomits in earnest. The entire reaction usually lasts four to six hours.

One such reaction is usually sufficient to convince a patient. When patients experience the reaction in a group, the effect seems greater.

Most of the side effects of which patients complain during the first few months of Antabuse administration seem due more to withdrawal of alcohol and to suggestibility than to the drug itself.

Acute psychotic reactions with strongly schizoid coloring have been observed in persons who were prepsychotic before Antabuse therapy. The drug was discontinued in each case.

Often therapy fails because the patient, deprived of the psychologic support of alcohol, develops severe anxiety or depression. Some such persons profit from psychotherapy or electroconvulsive treatments.

Posthepatitic and Alcoholic Cirrhosis

ARCHIE H. BAGGENSTOSS, M.D., AND
MAURICE H. STAUFFER, M.D.

WHEN patients with posthepatitic cirrhosis are compared to those with alcoholic cirrhosis, several differences become apparent.

Bleeding esophageal varices, ascites, palpable liver, intercurrent infections, and fatty hepatic infiltration are more common with alcoholic than with posthepatitic cirrhosis. Often leukocyte counts are high in absence of infection in cases of alcoholic cirrhosis.

Jaundice and signs of hepatic insufficiency dominate the clinical picture of the posthepatitic form. Serum globulin values are usually high and blood cholesterol levels low. Leukopenia is common.

In a survey of an equal number of cases of each of these types of cirrhosis, Archie H. Baggenstoss, M.D., of the University of Minnesota, Minneapolis, and Maurice H. Stauffer, M.D., of the Mayo Clinic, Rochester, Minn., find that the posthepatitic patients are usually considerably younger than the alcoholic patients and that the latter are predominantly men.

Hepatic insufficiency is the cause of death in about 81% of cases of posthepatitic cirrhosis but in less than 60% of cases of alcoholic cirrhosis. In contrast, death results from bleeding varices in over one-fourth of the alcoholic persons but only in about 16% of posthepatitic patients.

Posthepatitic and alcoholic cirrhosis: clinicopathologic study of 43 cases of each. Gastroenterology 22:157-180, 1952.

Simultaneous peripheral blood and volume studies are desirable in borderline anemias and polycythemias.

False Anemia and Polycythemia

SLOAN J. WILSON, M.D., AND PHYLLIS BOYLE
University of Kansas, Kansas City

SIMPLE red cell counts and hemoglobin tests often give misleading impressions of anemia or polycythemia in people with or without true blood disease.

Determinations of plasma volume and red cell mass reduce the chance of error. Although minor changes are unimportant, a thorough examination may prevent useless or harmful treatment, such as phlebotomy or splenectomy.

Sloan J. Wilson, M.D., and Phyllis Boyle noted poor correlation between different blood values of 62 persons given complete hematologic surveys. A group of 13 had so-called anemia of neurasthenia, 17 had low plasma volume, 15 polycythemia vera, and 17 were pregnant women.

Hemoglobin concentration was determined with a Coleman Junior spectrophotometer, which was also employed for a blood volume test with Evans blue dye. Hematocrit levels were found by Wintrobe's method. Values accepted as normal for women were 4.8 ± 0.6 million red cells per cubic millimeter and 14 ± 2 gm. of hemoglobin per 100 cc; for men, 5.4 ± 0.8 million red cells and 16 ± 2 gm. of hemoglobin.

Neurasthenia with supposed normochromic normocytic anemia did not respond to any type of antianemic therapy. This was to be expected, since the circulating red cell mass was invariably in the normal range for body weight. Hemoglobin values and erythrocyte counts were low.

Affected women were nervous, anxious, tense, and fatigued, though otherwise apparently well. Physical examination showed no defects, and thyroid function was good. In 8 instances, the dextrose tolerance curve was typically flat.

Low plasma volume caused a spurious rise in hemoglobin and red cell levels in 6 of 17 subjects. Only 2 of the entire 17 were really polycythemic; 1 of this pair had hemangioblastoma, and the other, emphysema. In 7 no disease whatever could be found.

Yet 6 patients were referred to the hematologic clinic with a diagnosis of polycythemia and had endured phlebotomy, which depleted the red cell mass of 1 man.

Blood tests were also deceptive in *pregnancy*, when both plasma volume and the red cell mass are naturally increased. Of 17 gestating women thought to be anemic,

Erroneous anemia and polycythemia. A comparative study of peripheral blood and blood volume. Arch. Int. Med. 90:602-609, 1952.

7 were in excellent health and 9 had some kind of blood disorder.

Sickle-cell anemia, which affected 2, was less severe than indicated by peripheral blood values alone. In a case of pernicious anemia, hematologic data were normal. Hypochromic anemia was seen in 4 instances and associated with augmented red cell mass in 3; circulating hemoglobin was at least up to standard.

In a case of unusual interest, splenectomy was barely escaped. The peripheral blood count indicated pancytopenia, but investigation revealed normal proportion of red cells with increased plasma.

Polycythemia vera illustrated the great discrepancy between some peripheral blood values and blood volume. In 5 of 15 cases, reduction of plasma had still further exaggerated the already high red cell count, hemoglobin, and hematocrit levels.

In 1 instance, the erythrocyte count failed to agree with red cell mass because phlebotomy had produced relative hypochromia and microcytosis. The hematocrit level alone was a poor index, but, when considered with hemoglobin concentration, gave useful information on results of bleeding.

In a man treated by phlebotomy, hemoglobin diminished and the packed cell volume rose considerably. Bleeding was therefore discontinued and radioactive phosphorus therapy begun.

Treatment for Hypertensive Headache

JOHN H. MOYER, M.D., AND ASSOCIATES

INTRAVENOUS aminophylline or caffeine brings prompt relief from the headaches associated with hypertension. Effects are achieved by decreasing the arterial and postarteriolar vascular distention of the cerebral vessels, report John H. Moyer, M.D., Arthur B. Tashnek, M.D., Sam I. Miller, M.D., Harvey Snyder, M.D., and Russell O. Bowman, Ph.D., of Baylor University, Houston. Results are more rapid and last longer after aminophylline, sometimes continuing for as long as a week.

Intravenous administration of 0.5 gm. of aminophylline in 50 cc. of normal saline brought immediate relief from headaches to 7 of 9 hypertensive patients; the same dosage of caffeine relieved 5 of 7 patients.

Kidney disease or heart failure does not alter the beneficial response to the drugs. Headaches associated with papilledema in patients with renal failure and malignant hypertension are frequently more completely alleviated by the xanthines than by opiates.

The effect of theophylline with ethylenediamine (aminophylline) and caffeine on cerebral hemodynamics and cerebrospinal fluid pressure in patients with hypertensive headaches. Am. J. M. Sc. 224:377-385, 1952.

Appropriate treatment will induce improvement in about 70% of cases of inoperable chest cancer.

Palliation with Incurable Chest Tumors

E. F. SKINNER, M.D., AND DUANE CARR, M.D.
University of Tennessee, Memphis

ROENTGEN therapy, drug treatment, specific supportive measures, and, sometimes, palliative resection help lengthen the useful life of individuals with intrathoracic malignant disease diagnosed too late to be curable surgically.

Methyl-bis, a nitrogen mustard, does not cure neoplastic disease, but frequently produces regression or remission for varying periods of time, state E. F. Skinner, M.D., and Duane Carr, M.D. The drug may reduce tumor size and so relieve dyspnea caused by a lesion in the thoracic inlet and is therefore used before irradiation for dyspneic patients.

Methyl-bis is especially useful for Hodgkin's disease and lymphomas. Approximately 70% of inoperable bronchogenic carcinomas show temporary subjective or objective improvement, such as decrease in pain or hemoptysis, when nitrogen mustard is used.

Dosage of Methyl-bis, which is given in an intravenous solution, is 10 mg. daily for three or four days, depending upon the age and weight of the individual. Hospitalization is ordinarily necessary for about five days.

Improvement may be noted for six weeks to six months. The regimen then has to be repeated, usually with less success.

Severe bone marrow depression can follow use of the drug but is only temporary and may be relieved by blood transfusions. Nausea or vomiting, apparently of central nervous origin, may occur. Pyridoxine, Dramamine, or sedatives given for abatement should be administered one-half hour after injection of Methyl-bis to avoid nullifying the drug's action.

Massive effusions from pleural carcinomatosis may be decreased or dried up by alternating injections of the nitrogen mustard, first intravenously and then intrapleurally, until three or four injections have been made, totaling 30 or 40 mg.

Triethylene Melamine is similar to the nitrogen mustard compounds in action but can be given orally and with less vomiting and probably affects a larger number of types of cancer than does Methyl-bis. Patients with Hodgkin's disease, lymphosarcoma, chronic lymphatic leukemia, myelogenous leukemia, or mycosis fungoides benefit especially, at least temporarily.

The usual dose is about 10 mg. orally the first week, and 5 or 10 mg. each week for the next three or four weeks. For severely ill pa-

Palliative therapy of incurable intrathoracic malignancies. Am. Pract. 3:900-910, 1952.

tients, 5 mg. is given initially, and further therapy according to response. Intravenous therapy with the drug is not without danger. Toxic reactions are similar to those with Methyl-bis.

Drug therapy may not actually prolong the life of a person with cancer of the lung or esophagus but often considerably increases the patient's useful life.

If deep roentgen-ray therapy and Methyl-bis are alternated, the skin does not have to take too much irradiation at one time and discomfort is less. The nitrogen mustard can be administered more quickly and economically than total body irradiation and tissues damaged by the drug appear to recover more rapidly than those injured by roentgen rays.

Temporary improvement can be achieved in inoperable malignant disease by supportive measures. Blood transfusions and iron therapy with ferrous gluconate or ferrous sulfate help offset the secondary anemia. Morphine addiction is unnecessary, since the same amount of comfort can be obtained from aspirin, aspirin and codeine, local heat, and, if pain is severe, deep roentgen-ray therapy or Methyl-bis intravenously.

A high-protein diet counteracts the suppuration and protein destruction accompanying the cancer. Multiple vitamins may improve the appetite and sense of well-being. Moderate sun baths also have a beneficial effect on the appetite and promote rest and relaxation.

Although work may be allowed, frequent vacations are advisable. The patient should be given as much encouragement as possible by the physician.

Local metastasis causing pain or irritation can be treated by excision, roentgen-ray therapy, or radium. Palliative pneumonectomy may be employed on rare occasions, for special indications, but usually only increases discomfort. Intercostal neurectomy is occasionally useful for severe localized chest pain.

Incurable carcinoma of the esophagus can be treated by esophageal dilatation followed by Methyl-bis injections or roentgen rays or both measures. Gastrostomy is seldom performed because of the mortality and because the patient is much happier when meals can be eaten normally and enjoyed with the family. Dilatations are performed through the esophagoscope under direct vision, using soft Jackson esophageal bougies.

¶ HEPATIC DYSFUNCTION IN DIABETES is common, especially after the age of 40 years, and is associated with metabolic and vascular complications. Using the bromsulfalein sodium retention test, Julius Pomeranze, M.D., of the New York Medical College, New York City, reports impaired activity of the liver in over 57% of patients with diabetes mellitus regardless of age, weight, and economic status.

Metabolism 1:540-543, 1952.

The physician should be alerted to possibility of thyroiditis with any enlargement of the thyroid gland.

Thyroiditis: Diagnosis and Therapy

GEORGE CRILE, JR., M.D.
Cleveland Clinic, Cleveland

NEEDLESS operations may be avoided if the possibility of lymphoid thyroiditis is recollected in all cases of enlarged diffuse goiters and if struma lymphomatosa is considered when firm nodular enlargement of the entire thyroid is observed.

The 3 distinct types of thyroiditis described by George Crile, Jr., M.D., are subacute or giant cell thyroiditis, which is the most common, struma lymphomatosa or Hashimoto's struma, of which lymphoid thyroiditis may be an early phase, and Riedel's struma. The latter is strictly a surgical problem and is rare.

Subacute Thyroiditis

Usually the patient with subacute thyroiditis consults a physician because of a painful sore throat. Systemic symptoms persist after the local tenderness in the thyroid region subsides. Daily elevations of body temperature are observed. Loss of weight, tachycardia, and elevated basal metabolic rate also may occur and the disease may be mistaken for hyperthyroidism.

Sometimes the onset is sudden and is associated with a high fever and a severe systemic reaction. The patients may be prostrated. Tachycardia is often out of proportion to the fever.

By physical examination, the entire gland is hard, diffuse, tender, and enlarged. The shape of the lobe is usually retained. If but a single lobe is involved or if one is much larger than the other, particularly if the gland is not tender, the possibility of cancer must be considered.

In such instances, a biopsy with the Silverman needle is of great value. The procedure can be done in the office and leaves no visible scar.

Striking elevations of the sedimentation rate and extremely low uptakes of radioactive iodine occur even in the chronic stage of the disease, when the gland is no longer tender.

Treatment—Roentgen radiation in doses of 600 to 800 r usually causes prompt and complete subsidence of all symptoms and signs of subacute thyroiditis. Pain is often dissipated within twenty-four hours of the first treatment; usually within three weeks the thyroid has returned nearly to normal size, and at the end of six weeks is no longer palpable. Recurrence of symptoms or spread to the other lobe may

Thyroiditis. Ann. Int. Med. 37:519-524, 1952.

require a second course of treatment.

Medication with cortisone or ACTH results in immediate remissions, but recurrence is prompt after short courses of medication.

Struma Lymphomatosa

The entire thyroid is diffusely involved in almost all cases of struma lymphomatosa, but the irregular bosselations and the tendency for 1 lobe to be larger often make the goiter feel nodular. The firm, rubbery consistency is quite characteristic and the gland is harder than is the case with most nodular goiters.

Struma lymphomatosa is frequently associated with a tendency to hypothyroidism, with a basal metabolic rate of less than 0%, thus differing from the rate of above 0% found with some nodular goiters.

Treatment—The thyroid enlargement can be controlled either by large doses of dessicated thyroid or by roentgen therapy in doses up to about 1,800 r. Thyroidectomy is rarely required. Myxedema commonly follows thyroidectomy performed for struma lymphomatosa.

Lymphoid Thyroiditis

Lymphoid thyroiditis may be an early phase of struma lymphomatosa or an entirely different entity. Patients tend to have a low basal metabolic rate and slight hypothyroidism. Occurrence is predominantly in females of between 20 and 40 years of age, frequently after childbirth.

The only symptom is progressive diffuse enlargement of the thyroid to 3 or 4 times normal size. Slight pressure symptoms may result.

Treatment—When 3 gr. of thyroid U.S.P. is given daily the enlargement usually disappears within two to three months. Roentgen treatment may also aid in diminishing the size of the goiter.

¶ ACUTE MYOCARDIAL INFARCTION is usually followed by increased urinary excretion of urobilinogen. In 19 of 21 instances confirmed by electrocardiograms and 5 of 9 diagnosed despite absence of the injury pattern, most positive reactions were confined to the eight-day period after the acute attack, the greatest number appearing on the second or third day. John M. Evans, M.D., Orlyn H. Wood, M.D., and Eleanor M. Brew of George Washington University, Washington, D. C., postulate that the increased urinary urobilinogen is the result of impaired liver function from the stress reaction of tissue necrosis. No apparent correlation exists between the elevated levels and peripheral circulatory collapse or cardiac decompensation. The determination of urobilinogen in the urine may have some value in establishing the diagnosis of acute myocardial infarction when other evidence is inconclusive. No aid to prognosis has been noted.

Circulation 6:925-929, 1952.

Relief from severe pain and other symptoms of acute pancreatitis may be achieved by blocking the nerve supply.

Splanchnic Block for Acute Pancreatitis

W. ANDREW DALE, M.D.
University of Rochester, N. Y.

IN treatment for acute pancreatitis, block of the splanchnic nerves with anesthetic solution is useful in selected cases.

Either a single retroperitoneal injection on the left side or bilateral paravertebral injections may be employed. The anterior route is too dangerous unless the abdomen is open.

Pathways of pain from the pancreas pass through visceral afferents via the celiac plexus and splanchnic nerves to the sympathetic ganglionated chains. As part of nonoperative treatment, infusion of procaine solution into the splanchnic nerve area stops severe symptoms of pancreatic inflammation, states W. Andrew Dale, M.D. The block apparently relieves vasospasm, allows emptying of dammed-up secretions by relaxation of the sphincter of Oddi, and halts sympathetic nerve stimulation of pancreatic secretion.

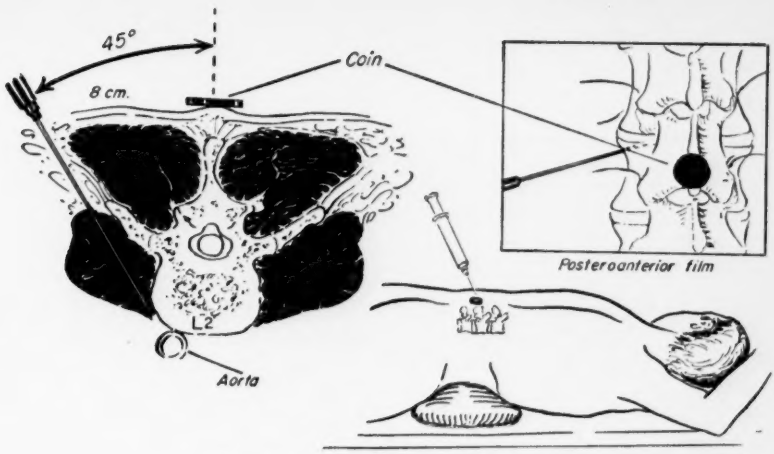
Before every block, a subcutaneous dose of barbiturate is given, usually 0.13 gm. of sodium phenobarbital. Bilateral paravertebral injections are administered with the patient in a prone position. A single long No. 22 needle is passed perpendicularly through the surgically prepared skin to touch the tip of the vertebral transverse process of the second lumbar vertebra. The needle is then directed cephalad to pass over the bone and, at the same time, medially to contact the lateral aspect of the vertebral body. Here 6 to 8 cc. of 1% procaine solution is deposited after aspiration to prove nonentry into a vessel or the subdural space. The multiple injection infusion is aimed at the ganglionated chains from T6 through T10 or T12.

The single unilateral splanchnic blocks are done on the left, with roentgen control of the needle position (see illustration). With the patient prone on a firm pillow beneath the abdomen, a coin is taped over the spinous process of the second lumbar vertebra and the position is determined by fluoroscopic examination. A preliminary film is made to verify position as well as allow the radiologist to correct exposure error.

An 8-in. No. 20 needle is then passed through the surgically prepared skin at a point 8 cm. lateral to the coin. The needle is pushed in at a 45° angle until the vertebral body is impinged upon. Fluoroscopic examination is then done to verify the position.

If this is satisfactory, the needle is withdrawn about 50% and re-

Splanchnic block in the treatment of acute pancreatitis. Surgery 32:605-614, 1952.



Procedure for left splanchnic block

directed slightly deeper so that the tip lies just anterior to the anterolateral surface of the second lumbar vertebral body. The correct needle tip position is half the distance from the vertebral body midline to the lateral border in the posteroanterior aspect and just at the anterior border of the vertebral body in the lateral aspect. If passed beyond this point the aorta is likely to be entered and blood aspirated.

At the final position, posteroanterior and lateral films are made just before the injection of 10 to 20 cc. of 2% procaine. At times the aortic pulsation can be felt by the needle, as the tip touches the vessel. Aspiration is done before, as well as several times during, the injection. If blood returns, the needle is withdrawn slightly until none is aspirated.

Splanchnic block is a painful procedure and may be dangerous. In acute pancreatitis with severe symptoms, especially pain, and with severe peritoneal reaction, moderate or complete relief is obtained and abdominal signs decrease.

Disease necessitating early operation must be eliminated with a high degree of certainty. Blocks do not relieve the necessity of treating conditions such as choledocholithiasis or penetrating ulcer that incite further episodes of pancreatitis.

Left splanchnic block by a single injection is apparently as efficacious as, and much less painful than, bilateral paravertebral blocks. Injection opposite the first lumbar vertebral body, rather than the second, is probably preferable, in order to get the solution to a higher level, but the second lumbar vertebra is easier to locate and the anesthetic solution diffuses in all directions in the loose retroperitoneal space.

Use of potassium salts to prevent hypopotassemia indicated in many types of surgical procedures.

Potassium Deficiency in Surgical Cases

HYMAN S. LANS, M.D., IRVING F. STEIN, JR., M.D., AND KARL A. MEYER, M.D.
Cook County Hospital and Northwestern University, Chicago

THAT insufficient potassium is an extremely common condition with pre- and postoperative patients is shown by the fact that 314 cases were noted in a single general hospital during one year.

Factors favoring potassium deficiency as outlined by Hyman S. Lans, M.D., Irving F. Stein, Jr., M.D., and Karl A. Meyer, M.D., are [1] limitation of potassium intake, [2] prolonged use of potassium-free parenteral solutions, [3] loss of gastrointestinal secretions, and [4] increased renal excretion of potassium because of surgical trauma, diuresis, and disturbed acid-base balance.

Preoperative hypopotassemia is most frequent with bowel obstruction, especially of the small bowel, pyloric obstruction, gonorrheal peritonitis, small bowel fistula, perforated peptic ulcer, pancreatitis, esophageal carcinoma, and acute cholecystitis. Postoperatively, serious potassium deficiency is likely to develop after extensive surgical procedures, often for cancer.

A healthy individual normally consumes about 3 to 4 gm. of potassium daily. Excesses are excreted in the urine without storage. Prolonged use of parenteral fluids without potassium can soon lead to hypokalemia. Since surgical patients are often malnourished and dehydrated, cellular breakdown is accelerated with resultant release of potassium from the cell.

Patients often lose gastrointestinal fluids by vomiting, suction, fistulas, and diarrhea. Gastrointestinal suction drainage without adequate replacement of potassium leads to potassium deficit in four or five days.

Surgical trauma increases production of adrenocorticotropic hormone by the pituitary, which stimulates the adrenal cortex to cause increased renal loss of potassium. Large losses of blood also cause serious depletion of potassium.

Hypopotassemia indicates a severe intracellular deficit of potassium; the manifestations are the result of altered cellular potassium rather than of lowered serum potassium. Gradually increasing muscular weakness is the most impressive symptom. The paresis usually involves muscles of the extremities and trunk, rarely those supplied by the cranial nerves.

Other symptoms are anorexia,

Diagnosis, treatment, and prophylaxis of potassium deficiency in surgical patients. Surg., Gynec. & Obst. 95:321-330, 1952.

nausea, lethargy, and drowsiness. Also frequent are mental confusion, shallow respirations, abdominal distention, and cardiac irregularity. Complete muscular paralysis, delirium, and hallucinations are seen rarely.

The electrocardiogram is useful in the diagnosis of hypokalemia; however, a normal electrocardiogram does not eliminate the possibility of potassium deficiency. The electrocardiogram is an excellent method of determining the development of hyperpotassemia during rapid intravenous potassium salt administration.

Hypochloremic alkalosis, refractory to sodium chloride administration, is often associated with hypopotassemia. Acid-base balance is restored by giving potassium.

Potassium salts should be given prophylactically to patients losing gastrointestinal secretions by suction drainage or fistulas, to those receiving only parenteral alimentation for longer than four days, and to many having extensive surgical procedures.

Prophylaxis, consisting of 2 gm. of potassium chloride in a liter of subcutaneous or intravenous fluids, should begin when Levin suction and intravenous fluids are started preoperatively and should be reinstituted twenty-four hours after surgery and continued until a liquid diet is tolerated. A daily total of 4 gm. of potassium chloride should be given, as well as 3 gm. for each liter of gastrointestinal fluid removed by suction or lost by fistula during each twenty-four-hour period.

The administration of potassium salts in cases of hypopotassemia must be done cautiously and only with proper laboratory and clinical supervision. Concentrated solutions or rapid administration may lead to a high serum level of potassium toxic to the heart.

The best replacement solution contains 3 gm. of potassium chloride per liter in intravenous or subcutaneous fluid so that 9 to 15 gm. is received daily. The solution should be administered not faster than 120 to 180 drops per minute. Intake should be continued for five days after serum potassium is restored to normal. No complications have been observed.

¶ SCALENUS ANTICUS SYNDROME may occur without cervical rib or other mechanical or traumatic factors. Alexander Blain III, M.D., of the University of Michigan, Ann Arbor, reports that scalenotomy effected complete relief of symptoms and a negative reaction to Adson's vascular test when Naffziger's syndrome developed in a 46-year-old woman immediately after an attack of pleurisy in the right side of the chest. The pathogenesis may conceivably be in the establishment of reflex stimulation of the cervical nerves by inflammation of the diaphragm resulting in tenderness and spasm of the anterior scalene muscle.

Surgery 32:1003-1005, 1952.

The ideal operation for cancer of the breast must encompass both primary pathways of lymphatic drainage.

Technic for Radical Mastectomy

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Memorial Center for Cancer and Allied Diseases, New York City

BREAST excision in continuity with en bloc removal of the internal mammary lymph-node chain comprises a practical operation for breast cancer, including both primary depots of lymphatic drainage—axillary and internal mammary nodes.

The relatively poor results from usual radical mastectomy for primary operable breast carcinoma are largely caused by early involvement of the internal mammary nodes. These nodes are not touched by the classical procedure, state Jerome A. Urban, M.D., and Harvey W. Baker, M.D. En bloc resection of the nodes should remedy the fault, particularly in stage I and stage II lesions of the medial half of the breast.

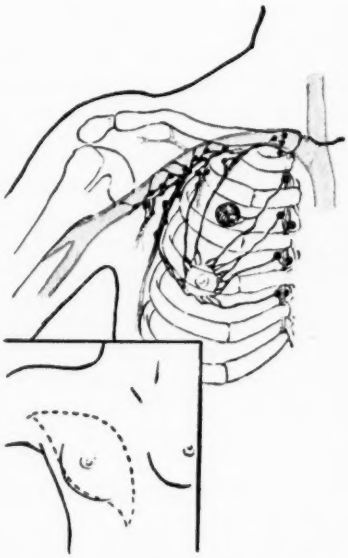

Fig. 1. Lymphatic drainage

An elliptic incision is made from the deltoid pectoral groove to the costal margin, at least 2 in. from the palpable border of the tumor (Fig. 1). Thin skin flaps are developed widely, and the overlying areolar tissue and pectoral sheath are dissected from the clavicular portion of the pectoralis major muscle and reflected downward with the operative specimen. The anterior sternal area and the lower chest wall are cleared in a similar manner down to the fifth interspace. Laterally, the anterior border of the latissimus dorsi is cleared.

The pectoralis major is divided between the sternal and clavicular fibers somewhere between the clavicle and the first rib, and the rib is freed of muscle.

Radical mastectomy in continuity with en bloc resection of the internal mammary lymph-node chain. Cancer 5:992-1008, 1952.

After the perichondrium of the anterior lower border of the first rib is incised and separated, a vertical incision is made through the intercostal muscles and pleura in the first interspace lateral to the sternal border. The internal mammary vessels are then transected and ligated. Similarly, the fifth rib is divided and reflected and the vessels are again transected and ligated just behind the upper edge of the sixth rib. All soft parts are turned upward.

A trap door is fashioned in the chest wall by joining both intercostal incisions with a sternal-splitting incision. The ribs and soft parts are divided just lateral to the costochondral junctions. The free portion of the chest wall, containing the internal mammary chain, is reflected laterally, in continuity with overlying muscle and breast.

A catheter is inserted through the sixth or seventh interspace laterally and connected to underwater drainage. The defect is repaired with a fascia lata graft under tension. The graft is approximated to the undersurface of the bony chest wall to create a smooth surface apposing the lung, and the outer edges are brought out over the rib and sternal edges (Fig. 2).

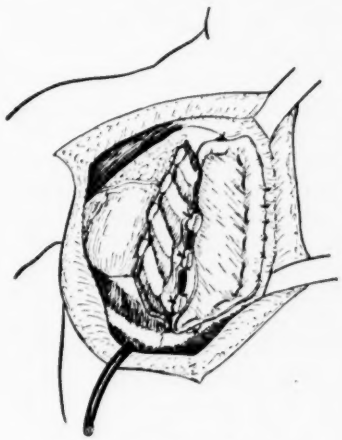

Fig. 2. Fixation of graft

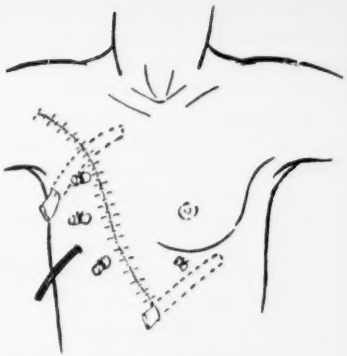

Fig. 3. After primary closure

The operation is concluded as in a classic radical mastectomy, clearing the axilla en bloc with the remainder of the specimen. Thoracodorsal vessels and nerve are routinely sacrificed, but the long thoracic nerve is preserved if the axilla appears free of tumor.

To facilitate closure and strengthen the chest wall defect, the opposite breast is mobilized and slid across to the operated side. The catheter is brought out through a lateral stab incision, sutured to the skin, and reconnected to underwater drainage. The lateral skin flap is sutured to the chest wall with several through-and-through silk sutures tied over gauze bolsters.

Two Penrose drains are inserted, one through a stab wound laterally into the axilla, the other through

the lower angle of the incision beneath the opposite breast (Fig. 3). After skin edges are sutured, a snug pressure dressing is applied.

Postoperatively, continuous steam inhalations relieve tracheitis and facilitate expectoration. Tracheal aspirations are performed twice daily for three days; aerosol penicillin inhalations are given four times daily for four or five days. Blow bottles are used after the first postoperative day for lung expansion.

The underwater drain is removed after the first day, if the lungs are well expanded and no effusion occurs. Ambulation is started on the second postoperative day.

No respiratory difficulty is encountered, and adequate use of the arm is retained.

Slightly over half the medial breast cancers exhibit internal mammary node metastases. Lesions of the upper inner sector and the postareolar area show the highest incidence of involvement. An analysis of patients treated with usual radical mastectomies reveals frequent parasternal chest wall recurrences in medial lesions, representing local extension of metastatic deposits in the internal mammary nodes. A rough inverse proportion exists between the incidence of internal mammary metastases and the five-year survival rates for each sector of the breast.

Reappraisal of Absorbable Glove Powder

C. MARSHALL LEE, JR., M.D., W. T. COLLINS, M.D., AND T. L. LARGEN, M.D.

STERILIZABLE cornstarch is the best glove lubricant available but does not obviate the need for precaution. No foreign material, even if ultimately absorbed, is entirely innocuous.

In substituting starch powder for talcum powder as glove lubricant, because the latter causes massive adhesions and granuloma formation, many hospitals tend to disregard former scrupulous efforts to decrease powder contamination of the operative field. Although the preventable hazards inherent in mineral or chemically irritating powders are eliminated, the principles of foreign body reaction remain, state C. Marshall Lee, Jr., M.D., W. T. Collins, M.D., and T. L. Largen, M.D., of the University of Cincinnati.

Under ideal conditions, starch powder is absorbed without ill effect. The starch granules must be finely dispersed; 2% magnesium oxide or 3% magnesium carbonate is used for dispersion. Powder clumps provoke foreign body reactions and subsequent adhesions.

Air contamination should be kept at a minimum and gloves thoroughly washed as free of powder as possible preoperatively.

A reappraisal of absorbably glove powder. Surg., Gynec. & Obst. 95:725-737, 1952.

Choledochotomy is more likely to be rewarding if done only when stones are suspected rather than routinely.

Common Bile Duct Exploration

FRANK GLENN, M.D.
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CHOLEDOCHOTOMY should be done only in case of specific indications and by an experienced operator, not as a routine procedure.

Indications

The conditions in which common bile duct exploration is called for are outlined by Frank Glenn, M.D., as follows:

- **Palpable stone within the common duct.**
- **Jaundice preceded by or associated with pain or intermittent fever.**
- **Thickened common duct walls with or without dilatation. This should be distinguished from edema of the common duct seen in acute and subacute inflammation of the gallbladder and associated with slight jaundice, that is, an icteric index of 30 or less.**
- **Contracted gallbladder containing stones.**
- **Dilated cystic duct.**
- **Enlarged head of the pancreas. The enlargement may be associated with stones in the lower end of the common duct or in the ampulla of Vater but may also be the result of malignant disease.**
- **Prolonged biliary tract disease in a patient over 60 years of age.**

Biliary tract disease should be treated as early as possible to prevent such complications and sequelae as choledocholithiasis, biliary cirrhosis, liver damage, and carcinoma of the liver or bile ducts.

Method

Common bile duct exploration done at the time of cholecystectomy should be accomplished in the following manner before the gallbladder is removed.

The cystic artery and cystic duct are identified and secured, and the gallbladder is dissected from the liver. A ligature is placed about the cystic duct just below the ampulla of the gallbladder to prevent the passage of stones.

An incision in the cystic duct allows entrance of a catheter and the injection of dye for cholangiographic study. To make the cholangiograms, 20 cc. of 50% Diodrast is introduced slowly at constant pressure over a period of two or three minutes. The head of the table should be lowered before the dye is introduced.

Care should be taken during injection not to introduce air into the biliary tree, since this can simulate a stone. After the films are made, the Diodrast is removed and the

Common duct exploration for stones. Surg., Gynec. & Obst. 95:431-438, 1952.

bile ducts are then flushed clean with saline.

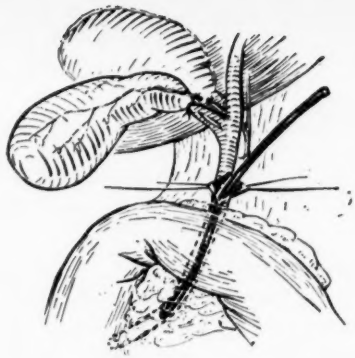
Exploration of the common duct is performed through a linear incision in the anterior wall of the duct, 2 cm. in length, extending from just above the point where the duct passes beneath or into the substance of the pancreas; 2 traction sutures of fine silk hold the walls of the duct apart (see illustration). The escaping bile is removed by suction.

The flow of bile from this opening often carries out stones. Next the common duct is flushed by saline with a soft rubber catheter. A malleable pituitary spoon may be used to explore the duct. Most stones are found in the region of the ampulla of Vater and should be removed intact if possible.

The proximal biliary system is explored in the same manner. Gentle irrigation of the tributaries is done with the catheter; too much pressure may cause further impaction.

After exploration of the common duct, cholangiograms are repeated. If a free passage into the duodenum cannot be demonstrated, the ampulla should be exposed through a longitudinal duodenal incision (see illustration).

When the exploration is completed, the gallbladder is removed, a 0.5-cm. stump of cystic duct is left distal to the junction with the common duct, and the catheter within is secured by a transfixing suture of No. 000 chromic catgut. The tip of the catheter is placed just beyond the distal extremity of the linear incision in the common duct. The incision is then closed with interrupted sutures of No. 000 plain catgut, reinforced with fine silk.



Exploration of common duct

When common duct exploration and cholangiographic examination are performed for patients who have had cholecystectomy, a large needle attached to a 30-cc. syringe is used to inject the Diodrast. In all secondary operations on the common bile duct a T tube is used for drainage. Care should be taken that the proximal limb does not extend beyond the bifurcation.

Cholangiograms are repeated ten days after the operation if possible. Any stones thus demonstrated should probably be removed after repeated films have been made for verification. Stones 0.5 cm. or larger in diameter should be removed before the tube in the common duct is withdrawn.

Of all patients with stones in the gallbladder, about 1 in 10 will also have stones in the common bile duct.

Surgery for arteriosclerosis is most likely to help if a channel can be plainly seen distal to obstruction.

Direct Surgery for Arteriosclerosis

ORMAND C. JULIAN, M.D., AND JOHN H. OLWIN, M.D.
University of Illinois, Chicago

WILLIAM S. DYE, M.D.
Veterans Administration Hospital, Hines, Ill.

PAUL H. JORDAN, M.D.
University of Chicago

REPLACEMENT of obstructed arterial segments by vein grafts or removal of the thrombus and a portion of the vessel wall may restore vital pathways for arteriosclerotic patients.

Direct surgery is most successful in segmental arteriosclerosis. Segmental involvement in the lower extremity results in few ischemic changes in the foot, although many cases of loss of pulse and oscillometer reading are noted, state Ormand C. Julian, M.D., William S. Dye, M.D., John H. Olwin, M.D., and Paul H. Jordan, M.D. Muscle or skin damage is slight, since collaterals can reenter the main channel distal to the obstruction.

With segmental changes, claudication occurs during exercise because the collaterals cannot adequately increase the blood flow. Rest pain and neuritic pain do not occur.

The final selection for operation depends upon the arteriogram. The best candidate, regardless of the length of the obstruction, has a smooth, normal appearing artery down to an abrupt complete occlusion, with a smooth main channel visible distal to the obstruction and with numerous collaterals. The site of obstruction usually is exactly at the level of a large collateral artery.

Surgery will also sometimes be beneficial when many irregular filling defects appear in the main proximal channel. Operative intervention is of little or no aid when the distal channel is not visualized by arteriograms or when diffuse arteriosclerosis is revealed with the lumen narrow but completely open.

Vein grafts—Care must be taken in positioning the leg at surgery to ensure good exposure of the involved vessel. Resection of a portion of the femoral artery can be repaired by an autograft taken from the saphenous vein or the superficial femoral vein of the same extremity. A homograft may be obtained by intraluminal stripping in a second operating room at the time of the recipient's operation. The graft to be used is taken at the last possible moment before being put in place.

Direct surgery of arteriosclerosis. Ann. Surg. 136:459-474, 1952.

If an autogenous graft is used, the proximal cut end of the artery is freed and prepared above the obstruction, and the saphenous vein is cleared of tributaries for a suitable distance. The vein is transected at the distal end of the planned graft. Rotation is avoided while the free end is brought up and the proximal anastomosis to the artery is made. The clamps are released and the arteriovenous fistula is permitted to function while the obstructed segment is excised and the distal artery is prepared for anastomosis.

The procedure prevents intimal drying in the prospective graft, lessens the danger of vein rotation, obviates accidental dropping of a free graft, and completely precludes possibility of getting the graft upside down in relation to the valve direction.

Spasm in the graft is gradually relieved by arterial pressure. The saphenous vein nearly always dilates to almost the exact caliber of a normal femoral artery. Less advantageous in this respect is the superficial femoral vein graft which becomes larger than the artery under arterial pressure.

Regional or general heparinization is used when vigorous circulation is not established through the graft and when the artery above and below the graft is denuded internally to produce a more suitable end for anastomosis.

Intimectomy—Fairly long segments of the proximal or distal arterial stumps must frequently be cleaned of arteriosclerotic changes to preserve important collaterals. The elastic outer coats of the stump are everted to form a cuff and then slowly stripped back, threading the cuff onto the vessel while a clean cleavage plane in the media is carefully separated.

Thrombus, intima, and the diseased inner media are removed, leaving some medial fibers and the thickened adventitia. Partially occluding material is taken from the mouth of the collateral.

The technic can be used as the sole method of removing an obstruction, beginning the eversion after transection of the midportion of the obstruction. When the segment to be freed is longer than 1½ in., a transverse incision is made about half the circumference of the artery and the core is brought out. The everting process is then repeated as far back as necessary. The vessel can be closed without the disadvantage of a long suture line. Regional heparinization is used for the femoral artery; general for the iliac.

Results—Pulses return after the procedures, as well as great increase in the oscillometric index on the calf in half to two-thirds of the cases. Intermittent claudication disappears.

Grafting is probably superior to intimectomy at the level of the superficial femoral artery where long segments are usually involved.

Homografts do not fare as well as autografts. Later thrombosis may be caused by the trauma of removing the vein from the donor and by the fact that a homologous rather than an autogenous graft is used.

Two incisions are sometimes sufficient for removal of the long saphenous vein by intraluminal stripper.

Stripper for Varicose Veins

RICHARD W. ZOLLINGER, M.D., AND HOWARD M. GILMORE, M.D.
Ohio State University and Mount Carmel Hospital, Columbus

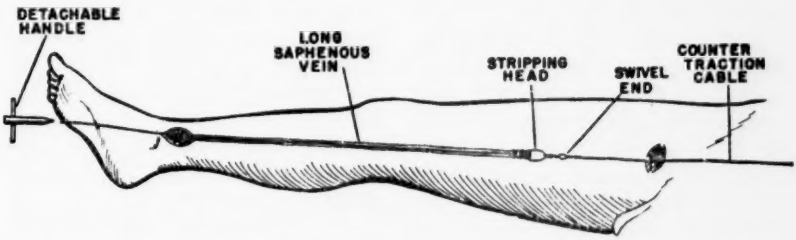
AN intraluminal vein stripper facilitates the treatment of varicose veins of the legs.

The instrument described by Richard W. Zollinger, M.D., and Howard M. Gilmore, M.D., has the following essential parts, all of stainless steel or other suitable noncorrosive material:

A round metal container
Two 36-in. flexible cables. The first cable has a threaded obturator on each end. The second cable has a threaded obturator on one end and a leaded swivel between the threaded obturator and cable on the other end.
Probes
Stripping heads
Detachable handle

The outfit is held in a container which prevents the cables from kinking. The handle obviates kinking of the cables during the stripping procedure. The entire unit, including the round metal box, is sterilized and placed on the instrument table and the surgeon works directly from the container while stripping.

The lower abdomen and legs are prepared as for any vein-stripping procedure. A transverse incision is then made on one side, over the saphenous bulb in the subinguinal region.



The tributaries of the saphenous vein are clamped and tied, the saphenous vein is doubly clamped and incised, and the proximal end is doubly ligated. The clamp is left on the distal end which is to be stripped. A longitudinal incision is then made over the lower end of the internal saphenous vein, anterior to the internal malleolus at the ankle.

The stripping cable, with a probe the proper size for the vein, is passed upward from the lower end of the saphenous vein at the ankle. After removal of the hemostat, the

A new intraluminal vein stripper. Surgery 32:846-851, 1952.

probe emerges at the thigh incision. The probe is then removed and replaced by a stripping head of the proper size, which is determined by the size of the vein.

The vein to be removed is ligated in 2 or more places behind the stripping head. This maneuver will prevent the invagination of the vessel with rupture and partial removal.

The swivel end of the second, or countertraction cable, is now screwed into the rounded end of the stripping cable. The swivel permits the insertion of the countertraction shaft without turning the entire length of the cable.

The second cable is handled by the assistant and allows complete control of the stripping head, thus keeping the base at right angles to the vein. A means also is provided for a seesaw motion if a large venous tributary is reached and causes resistance. Should the veins break, the traction cable can be pulled back through the upper incision, the stripping head detached and reapplied to the threaded obturator at the ankle. The vein can then be stripped in the opposite direction from below upward.

The long saphenous vein is best removed with 2 incisions. If the stripper passes into a branch or impinges on a valve remnant, extra incisions will be necessary.

The short saphenous veins are more easily stripped with the patient face downward on the operating table. The legs are again prepared and draped. A small longitudinal incision is made 1 fingerbreadth anterior and lateral to the Achilles tendon, at the level of the external malleolus. The distal end of the vein is ligated and the proximal end probed. The probe is identified in the popliteal fossa through a short transverse incision. The vein is stripped from above downward.

After removal of veins, pressure is applied over sterile dressings with elastic bandages.

¶ ASYMPTOMATIC TOXOPLASMOSIS may occur in children as a congenitally or postnatally acquired infection. Among 102 unselected patients at the Charity Hospital, New Orleans, examined for the *Toxoplasma* antibody by the methylene-blue technic, the incidence of titers in excess of 1:4 in various age groups was as follows: 0 to 4 years, 15%; 5 to 9 years, 33.5%; and 10 to 15 years, 35%. Among 41 subjects similarly classified, skin tests made with mouse antigen were positive in 7.6, 22.7, and 83.3%, respectively. Since 25% of randomly chosen subjects have positive reactions on dye tests and a disturbing lack of correlation exists between the two methods, Joseph M. Humphries, M.D., and Clifford G. Grulee, Jr., M.D., of Tulane University of Louisiana, New Orleans, conclude that the determinations have limited diagnostic value in suspected instances of the disease.

Am. J. Dis. Child. 84:580-586, 1952.

High-electrolyte feedings and excessive transfusions may be factors in retrolental fibroplasia of prematures.

Retrolental Fibroplasia and Prematurity

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University of Texas, Galveston

ARLINGTON C. KRAUSE, M.D.
University of Chicago

THE chief complication of extreme prematurity and a leading cause of blindness in the United States is retrolental fibroplasia, rarely reported in other countries.

The condition is apparently related to high-electrolyte diets and large blood transfusions which may overtax the capacity of small premature infants for physiologic adjustment. ACTH therapy, which has proved useful, may act chiefly by promoting diuresis, conclude W. R. Hepner, Jr., M.D., and Arlington C. Krause, M.D.

Most premature infants weighing less than 1,500 gm. have the physiologic background for retrolental fibroplasia. The ocular changes start after birth in eyes apparently normal and with no obvious congenital malformation.

Ocular vessels and especially veins become engorged, then tortuous, and blood escapes into the retina or vitreous. Retinal edema is observed, and the vitreous is clouded at the periphery and about the disk. Myopia usually develops at this time.

In 60% of cases, early alterations regress with few sequelae. In other instances, further changes may cause lasting damage.

Starting at the periphery, the retina loosens and billows toward the lens. Even at this stage tissue may readhere and heal with varying degrees of scarring.

If blood vessels atrophy, however, the retina may be permanently detached in some areas, forming either a fold or a stalk. When the membrane is completely detached, the classic greenish white mass appears behind the lens.

The incidence of retrolental fibroplasia is extremely irregular. Cases are increasing in the United States, yet vary from city to city, from one hospital to another, and in the same institution at different times.

In Sweden, where human milk is used almost exclusively, few cases are recorded. The first 4 babies reported to be affected in Sweden were receiving mixtures of cow's milk, which has 4 times as much sodium, twice as much chloride, 7 times as much phosphorus, and 4 times as much calcium as does human milk.

The effects of low- and high-electrolyte diets were compared in

Retrolental fibroplasia: clinical observations. Pediatrics 10:433-443, 1952.

the premature unit of the Chicago Lying-in Hospital in 24 infants weighing 850 to 1,540 gm. at birth. A group of 12 received only water and autoclaved human milk until weights rose to 1,800 gm. The other 12 were given partly skimmed cow's milk with 10% carbohydrate added. All the babies on reaching 1,800 gm. received the second diet.

No eye lesions developed in the first group before the dietary transfer, but eventually 3 subjects in each class were affected. The high-electrolyte regimen produced edema, which, however, could be eliminated by change to the low-sodium diet.

During the years 1937 to 1946 and from 1950 through June 1951, when small premature babies routinely had various low-electrolyte schedules, incidence of permanent blindness was 7%. From 1946 through 1949, when a high-electrolyte mixture was employed, 22 of 49 babies, or 45%, became permanently blind because of retrolental fibroplasia. An additional contributory factor may have been the 2% sodium chloride contained in the 10% carbohydrate of the high-electrolyte feedings. Recently, only salt-free carbohydrate has been allowed.

Records of 20 infants weighing less than 1,500 gm. at birth were examined. Greater numbers and quantities of transfusions were found for 8 with fibroplastic lesions. Of 22 babies with ocular damage, all but 2 had received blood transfusions.

Then, ophthalmoscopic examinations were done before and after all transfusions. In 4 infants with early slight vascular change, injections were followed by severe hemorrhage or retinal detachment. In 1 case, spontaneous reattachment was seen after diuresis produced by shifting to human milk.

¶ IMMUNIZING INOCULATIONS, recent or remote, do not influence the development of paralytic or bulbar types of poliomyelitis. Administration of diphtheria and tetanus toxoids and pertussis vaccine, but not of penicillin, within a month of the onset of the disease tends to localize the paralysis in the injected limb. Although in a New York City study in 1950 more patients with than without poliomyelitis had had recent preventive treatment, Morris Greenberg, M.D., and Harold Abramson, M.D., of the New York City Department of Health believe that no conclusions can be drawn until the incidence is evaluated in corresponding groups of immunized and nonimmunized children. Since less than 3% of reported cases of poliomyelitis occur in patients less than 1 year of age, any possible hazard in an average year is so small that postponement of immunization is not justified. In epidemic years, elective procedures might be deferred to a more propitious time for subjects more than 6 months old.

New York State J. Med. 52:2624-2629, 1952.

When the cause of a child's insufficiency is eliminated, supplemental iron hastens recovery.

Iron Deficiency Anemia in Childhood

NATHAN J. SMITH, M.D.
Temple University, Philadelphia

ANEMIA of infants and older children is generally a result of iron shortage.

The cause may be an inadequate supply, as with low intake of iron-containing foods, or an excessive demand, as for example, after bleeding or protracted illness. Many cases are seen in babies 12 to 20 months old who were not fed meats, fruits, and vegetables at the proper age.

Treatment is outlined by Nathan J. Smith, M.D. Factors producing deficiency should be removed and the loss replaced by oral doses of a simple ferrous salt.

From 60 to 70% of body iron is in hemoglobin and 15 to 20% in storage depots. The body cannot excrete significant amounts but loses about 1 to 2 mg. daily in exfoliated cells.

Because children are growing rapidly, supplies of iron must be relatively large to maintain a normal hemoglobin level.

A full-term baby whose mother is well nourished has enough iron for the first four to six months of life. Inadequate stores at birth result from maternal lack or from prematurity or multiple births.

Absorption of dietary iron may be hampered by congenital defects, chronic diarrhea, or celiac disease. Reserves may be depleted by chronic or acute blood loss or by parasites, especially hookworm.

Iron deficits are shown chiefly by pallor and in severe cases by anorexia, restlessness, and fatigue. The child may eat dirt, stones, paper, or other foreign matter. Cardiac murmurs with slight enlargement of the heart and a soft but palpable spleen may be noted.

Parents should be questioned about the mother's health, number and intervals of pregnancies, premature or twin birth of the infant, the child's exact diet, and any bleeding or alimentary disorder.

The diagnosis is confirmed by peripheral blood showing microcytic hypochromic anemia. The red cell count is only slightly reduced, but the hemoglobin level is very low, with normal reticulocyte count and moderately decreased hematocrit value.

In Wintrobe indexes, corpuscular volume, hemoglobin content, and hemoglobin concentration are diminished. Platelets are normal. Except for slight lymphocytosis, leukocytes are unaffected, unless infection develops.

Mediterranean anemia is also hypochromic but is distinguished

Iron deficiency in infants and children. M. Clin. North America 36:1683-1691, 1952.

by hemolysis. Chronic infection may induce anemia by preventing blood-forming tissues from using iron; the red cell formation is decreased without hypochromia.

The typical anemic baby a year or more old has a healthy mother and remained well for his first six or eight months. He then became increasingly pale and irritable, with a poor appetite.

The baby's diet consists largely of milk and bland carbohydrates. Iron-containing solid foods are stubbornly refused.

The child will eat more sensibly if the menu is well balanced. Milk should be limited to 1 pt. daily, and high carbohydrate foods should be withdrawn.

In some cases, medical therapy or a major operation may be required to eliminate gastrointestinal disturbances or a bleeding site.

An iron supplement should be taken orally between meals, when the upper intestine is relatively empty, to prevent formation of indigestible iron compounds. From 50 to 100 mg. is supplied daily as 540 to 750 mg. of ferrous sulfate, divided into 3 or 4 doses. Treatment must be prolonged, since the daily rate of hemoglobin increase is about 0.2 gm. per 100 cc.

Intravenous medication is rarely necessary. In emergencies, packed red cells may be transfused in repeated doses of 8 to 10 cc. per pound of body weight.

¶ HEPARIN AND DICUMAROL, especially the former, may be effective in relieving the severe pain of dysmenorrhea. The dosage customarily employed in anticoagulant therapy of thrombosis was successful for 10 of 12 patients, reports Harry Zilliacus, M.D., of the University of Helsinki; the 2 failures occurred with the coumarin derivative. The treatment is based on the observation that intravascular aggregation of erythrocytes, readily discernible in the conjunctival vessels, is a regular phenomenon at the stage of desquamation in the normal menstrual cycle and that the trauma thus produced may cause corpuscular clumping.

Ann. chir. et gynaec. Fenniae 41:165-169, 1952.

¶ ACUTE UNILATERAL SALPINGITIS occurs as a nonspecific infection seldom recognized clinically. In 4 of 5 patients, each treated by a different surgeon at the Evanston Hospital and variously diagnosed preoperatively, the disease was probably of embolic origin; in 1 instance after spontaneous abortion the source may have been vaginal or uterine. E. Seymour Burge, M.D., of Northwestern University, Evanston, Ill., emphasizes that unilaterality of lower abdominal signs and symptoms does not eliminate the possibility of fallopian tube morbidity.

Quart. Bull. Northwestern Univ. M. School 26:312, 1952.

Death from hydrocephalus is not inevitable nor is mental and physical development invariably limited.

Hydrocephalus: Diagnosis and Therapy

MICHAEL SCOTT, M.D.
Temple University, Philadelphia

THE earlier diagnosis is made, the better the chance for treatment of an infant with hydrocephalus. The condition, found in 88 of 130,000 living babies, is not invariably fatal and does not always limit mental or physical growth.

Michael Scott, M.D., classifies internal hydrocephalus as either noncommunicating or communicating. Noncommunicating hydrocephalus may occur from obstruction in any part of the ventricular system. The communicating type may arise from obstruction of the basal cisternae, subarachnoid space, or sagittal sinus or from excessive production of fluid by a choroid plexus.

Diagnosis

Early signs of hydrocephalus are: [1] persistent fullness of the fontanel when the infant is supported in a sitting position and not crying, [2] wide separation of suture lines, [3] prominence of the frontal bone with apparent recession of the eyeballs, [4] a wide anterior fontanel, usually of about 2.5 cm. in diameter, [5] prominence of scalp veins, [6] feeding problem, [7] head circumference progressively larger than chest, [8] dullness or irritability, and [9] Macewen's sign.

Roentgenograms may show excessive separation of suture lines and a beaten silver appearance of the skull with abnormal calcifications.

Intracranial puncture is done with an 18-gauge, short-bevel, 1½-in. spinal needle through a coronal suture from 0.5 to 1.5 cm. lateral to the lateral angle of the anterior fontanel. When fluid is encountered, 50 cc. of fluid is replaced by 40 cc. of air and stereoscopic projections are made to see whether the fluid is subdural or ventricular. If the needle is in the ventricle, the depth of the needle is measured to determine the thickness of the cortex, and a regular air ventriculogram is made.

Encephalogram from below is dangerous if the pressure is high with internal noncommunicating hydrocephalus, but when the pressure is low, this approach visualizes both intra- and extracerebral cavities.

A third procedure involves injecting dye into a lateral ventricle or the spinal canal and then seeking to recover the material either elsewhere in the cerebrospinal system or in the urine.

Hydrocephalus is to be distinguished from true macrocephaly,

Diagnosis and treatment of hydrocephalus. M. Clin. North America 36:1739-1750, 1952.

subdural hydroma or hematoma, cleidocranial dysostosis, and tumor.

In macrocephaly, the ventricles are shown by ventriculograms to be normal or small. The ventricles are compressed or shifted in hydroma. The abnormal motility of the shoulder and the absence of the middle third of the clavicles diagnoses cleidocranial dysostosis. Air studies reveal brain tumor.

Medical Therapy

Treatment of hydrocephalus is nonsurgical if the head is enlarging slowly, behavior is normal, feedings are well tolerated, and the ventricular pressure is 150 mm. of water or below. Therapy includes fluid limitation as low as 16 oz. per twenty-four hours to reduce ventricular fluid production; diuretics; atropine-like drugs to check secretion of choroid plexus; irradiation of choroid plexus; postural drainage; and repeated ventricular taps.

Surgical Therapy

Medical measures usually fail and the head circumference enlarges rapidly or the ventricular pressure gradually increases. If results are poor after a month, surgical measures must be considered.

Other indications for surgical intervention are an initial and persistent intraventricular pressure above 250 mm. of water, which may cause early and rapid brain damage, or evidence of a noncommunicating hydrocephalus.

Operation is not done if the head is obviously tremendous, the cortex and white matter are less than 1 cm. thick, or the infant has an associated serious congenital deformity or has poor mental activity not relieved by repeated daily taps.

Operative procedures include choroid plexus coagulation or extirpation, which apparently offers the best chance for survival and mentality in communicating hydrocephalus with some fluid absorption; third ventriculostomy; bypassing the obstruction by inserting one end of a rubber catheter into a ventricle and the other into the cisterna magna; ventriculoperitoneal shunt; lumbar subarachnoidal-peritoneal shunt; and ventriculomastoidostomy.

¶ ANAL LESIONS, including fissures, abrasions, severe cryptitis, and thrombosed hemorrhoids, are often so painful as to overshadow the causative intestinal disease. In many cases surgery cannot be used, as with thrombosed hemorrhoids secondary to diarrhea, but J. Arnold Bargen, M.D., and Raymond J. Jackman, M.D., of the Mayo Clinic, Rochester, Minn., find that discomfort from the minor complications may be greatly relieved by topical preparations containing ethyl aminobenzoate. The drug, Benzocaine, may be used in suppositories or in a dusting powder. Relief is also obtained with irrigations of hot water after each bowel movement, with a 16 or 18F catheter substituted for the hard-rubber enema tip.

Journal-Lancet 72:530-532, 1952.

A method is presented for treating chemically burned eyes by insertion of the membrane from a boiled egg.

Egg Membrane for Eye Injury

MAURICE CROLL, M.D., AND LEO J. CROLL, M.D.
Grace Hospital, Detroit

AFTER chemical damage of the cornea, insertion of a curtain of egg membrane between the conjunctiva and the cornea serves as a protective cover for the cornea, greatly reducing corneal scarring, vascularization, ulceration, and recurrent irritability. Formation of adhesions and loss of cul-de-sac depth are prevented by packing with strips of membrane.

The delayed corneal healing in chemical eye injuries, state Maurice Croll, M.D., and Leo J. Croll, M.D., is largely the result of the continuous contact with the damaged conjunctiva, which contains a large quantity of destructive chemical. This adversely affects the cornea and also the limbal vessels, the main source of nutriment to the cornea.

Acid burns of the eye are not as serious as alkali. Acid burns are self-limiting and do not progress or penetrate. The amount of damage to the eyes can be estimated when the injury is first seen. The aqueous is not affected and sequelae are few.

Alkali burns are extremely difficult to evaluate at first and are of slow progression and treacherous. Such injuries readily penetrate the epithelium, the full thickness of the stroma, and the endothelium into the anterior chamber. The aqueous is altered to a destructive medium which exposes to injury all the contacting structures—iris, ciliary body, angle of the eye, and lens.

The following steps should be observed in treating ocular chemical burns:

- Pontocaine, 0.5%, is instilled in both eyes for relief of pain and blepharospasm. Demerol or morphine sulfate is given intramuscularly for sedation and comfort.
- A history of the chemical injury is obtained, whether acid or alkali, the exact time of the accident, what first aid was given, and the duration of the exposure.
- The cornea and conjunctiva are minutely inspected with a magnifying loop and a brilliant source of illumination. The cornea is stained with 2% fluorescein to show the depth of the burn.
- From 3 to 4 drops of 2% atropine sulfate is instilled several times until an effect is certain. This must be done when the patient is first seen because iritis appears within twenty-four hours.
- To prevent secondary infection, 3 or 4 drops of 30% sodium sulfacetimide is instilled intermittently into the conjunctival sac.

Egg membrane for chemical injuries of the eye. Am. J. Ophth. 35:1585-1596, 1952.

•The cornea is irrigated slowly and gently from the temporal side with 2,000 cc. of distilled sterile water at room temperature. Frontal irrigation, which may drive the chemical deeper into the tissues or loosen vital portions of the cornea, is avoided. An intravenous set with a smooth glass tip should be used. The flow is easy to regulate by the height of the container. Rubber bulb syringes give an uneven, too forceful flow.

•Any foreign bodies are removed. The lids are doubly everted and the entire conjunctiva inspected and irrigated. The cornea is irrigated again. Irrigation should consume at least half an hour.

•Two eggs previously boiled for twenty minutes are brought into the operating room in a sterile container. The eggs are peeled so that at least 2 large portions of the lining membrane are removed intact. The membrane is kept between moist gauze until used and is carefully inspected for bits of shell.

•A piece of egg membrane, ¾ by ¾ in., is laid over the cornea and sutured superiorly in 2 places to the conjunctiva and episcleral tissue with two 4-0 black silk sutures. The intact egg membrane hangs down over the cornea like a curtain and is molded securely with the blunt end of a muscle hook to conform to the shape of the cornea. The egg membrane should overlap the cornea for a distance of 3 mm. in all directions.

A similar portion of membrane is sutured below in 2 areas. This also acts as a curtain and covers the cornea, giving a double layer of protection.

Longer strips of egg membranes, 1½ by ¼ in., are rolled and packed into the upper cul-de-sac. Pressure dressings are applied to both eyes.

•For postoperative care, the following therapeutic agents should be administered: penicillin, 400,000 S-R units, every eight hours; Pyrabenzamine, 50 mg. every six hours; morphine sulfate, ¼ gr. every four hours for pain; and, at bedtime, Seconal, 1½ gr.

•The first dressing is done at seventy-two hours. The cul-de-sac packing will roll out if the blepharospasm has subsided. Otherwise the packing can be picked out; if necessary new membrane is reinserted. The cornea is also inspected by gently lifting the curtains, but the egg membrane is left in place until the sixth day.

¶ INCLUSION CONJUNCTIVITIS of newborn infants is readily cured when treated for fourteen days with sodium sulfacetimide, 10%, aureomycin, 0.1%, or terramycin, 0.1%, in ointment. While the disease in adults is clinically suppressed by the three agents, H. L. Ormsby, M.D., and associates of the University of Toronto found that exacerbation occurred in all 4 eyes treated with aureomycin, in 3 of 6 when terramycin was used, and in 3 of 9 after application of sulfacetimide. In the last, a second course effected cure.

Am. J. Ophth. 35:1811-1814, 1952.

Some method of irradiation should follow surgical treatment for pterygium to prevent recurrence.

The Management of Pterygia

GEORGE M. HAIK, M.D., RICHEY L. WAUGH, JR., M.D., WOOD LYDA, M.D., AND GEORGE S. ELLIS, M.D.
Louisiana State University, New Orleans

OPERATION to correct pterygium should be performed before corneal overgrowth occurs and should be followed by irradiation. The surgical procedures are not simple and the recurrence rate is high, state George M. Haik, M.D., Richey L. Waugh, Jr., M.D., Wood Lyda, M.D., and George S. Ellis, M.D.

Progression

Pterygium is initiated by an inflammatory process with raised conjunctival lesions which in time encroach upon the cornea. Prompt and effective treatment in the precursor period may prevent true pterygium.

The next stage, the vascular or proliferative, is progressive. The lesion becomes larger and more elevated with an increase in connective tissue and conjunctival and episcleral vessels.

The avascular stage is not progressive, and the lesion has a pale, tenuous appearance.

Recurrent pterygium is a particularly difficult therapeutic problem and consists of proliferation of connective tissue elements and epithelium over the area denuded at operation. The postoperative deformity may be actually greater than the original growth.

Treatment

In the precursor stage, treatment is prophylactic and consists of the removal of any possible source of external ocular disease and the maintenance of normal conjunctival flora.

Vascular pterygia require active therapy. Lesions presenting the greatest vascularity are especially likely to recur and therefore require particularly careful treatment.

Since the avascular stage is not progressive, surgery is not required except for cosmetic reasons.

Medical measures—Wide-spectrum antibiotics are useful in the treatment of chronic conjunctivitis, which is usually a mixed infection. Cortisone is used locally to control hypersensitive and inflammatory responses. Vasoconstrictor drugs relieve congestion and discomfort if the patient has an allergy.

Vitamin A is given orally if nutritional deficiencies exist. For elderly patients dosage should not exceed 100,000 to 500,000 units daily if continued several weeks.

Surgery—The objective of pte-

The management of pterygia with particular reference to recurrent pterygia. South. M. J. 45:832-839, 1952.

rygium surgery is to alter the pattern of growth so that corneal reepithelization toward the limbus is more rapid than regrowth of the pterygium inward.

For small pterygia, excision and suture may be all that is necessary. With larger growths which are relatively avascular, the McReynolds operation is the most satisfactory. After the head of the pterygium is buried in the cul-de-sac, the limbal edge of the transplant is inverted, ensuring an epithelial surface. The sutures must always be of silk. Recurrence rate is high if this operation is used when the lesion is very vascular.

For vascular lesions or recurrent pterygia, exposure of the limbal sclera with resection of the pterygium is used. The head of the pterygium is freed from the underlying cornea and dissection is carried posteriorly over the sclera until all scar tissue is freed. The head is then resected, great care being taken not to perforate the cornea or sclera. Atropine or scopolamine, instilled at the operation, may prevent painful ciliary spasm when irradiation is done later.

Postoperative measures—Recurrences can be expected after a large proportion of pterygium operations, regardless of the technic of removal. The best method of preventing recurrence, whether the operation is a primary transplant or excision of a recurrent growth, is irradiation.

The Iliff radium applicator should be applied immediately after the operation, the first application being three to six minutes. During the first week 1 or 2 more three-minute applications are made. Total dosage never exceeds fifteen minutes and is usually considerably less.

Fragmentation of blood vessels is the measure of effectiveness. One week after operation, if dosage has been adequate, complete fragmentation of the blood vessels will be observed by slit lamp.

Chemotherapeutic and antibiotic ointments are used routinely after the operation. Use of cortisone ointment after surgery reduces the fibrous tissue in recurrent lesions. Symptomatic relief is also obtained by cortisone therapy. Bandaging is continued for seven to ten days. Duction exercises are begun immediately after the operation to prevent limitation of motion.

¶ RETINAL ARTERIOLOSCLEROSIS parallels or exceeds the severity of similar renal changes in cases of essential hypertension. In 69 of 80 hypertensive patients who had sympathectomies, John P. Wendland, M.D., of the University of Minnesota, Minneapolis, found comparable lesions by ophthalmoscopic examination and kidney biopsy, with ocular evidence in 19 of 23 subjects without apparent renal damage. Patients with glomerulonephritis and associated primary hypertension do not live long enough for sclerosis of the small retinal vessels to develop.

Am. J. Ophth. 35:1748-1752, 1952.

Amelioration of hypertensive cardiovascular disease may follow excision of adrenal cortex tissue.

Relief of Malignant Hypertension

GEORGE W. THORN, M.D., J. HARTWELL HARRISON, M.D., JOHN P. MERRILL, M.D., MODESTINO G. CRISCITIELLO, M.D., THOMAS F. FRAWLEY, M.D., AND JOHN T. FINKENSTAEDT, M.D.
Peter Bent Brigham Hospital and Harvard University, Boston

IF malignant hypertension does not respond to medical treatment and kidneys are not seriously impaired, bilateral adrenalectomy in 1 or 2 stages may be worth while.

Since the outstanding effect is greater urinary output of sodium and chloride, patients with congestive failure are most likely to benefit. Some even return to work.

Adrenal secretions are replaced by small oral doses of cortisone, at times increased and supplemented by salt and desoxycorticosterone acetate. Since the balance between hormone surplus and deficit is delicate, unusual stress or neglect of medication for a single day may bring on a crisis.

Surgical results in 15 cases are summarized by George W. Thorn, M.D., J. Hartwell Harrison, M.D., John P. Merrill, M.D., Modestino G. Criscitiello, M.D., Thomas F. Frawley, M.D., and John T. Finkenstaedt, M.D.

Advanced malignant hypertension was diagnosed preoperatively in 11 instances, and retinal hemorrhages and exudates were seen in all but 1 of these. The heart was enlarged in 9 cases, frankly failing in 7, with coronary disease in 3. Severe glomerulonephritis was evident in 3 instances.

More than a year after adrenalectomy, 4 of the 5 survivors were still improved in some respects. Of 9 who lived at least three months, 2 had definitely lower basal blood pressures and 1 a transient reduction.

As edema subsided, venous pressure and heart size decreased, with gain in circulation time and vital capacity. In 3 cases with unaltered hypertension, symptoms were greatly relieved.

Hospital care is required for ten to twenty days before operation; 100 mg. of cortisone acetate is given intramuscularly the night before and repeated two hours preoperatively.

During surgery, continuous segmental spinal anesthesia is given to prevent dangerous fluctuations in blood pressure. The patient ordinarily lies prone, the twelfth rib is resected, and both glands can be removed without changing the operative field. The posterolateral approach is used for obese subjects, with complete change of

Clinical studies on bilateral complete adrenalectomy in patients with severe hypertensive vascular disease. Ann. Int. Med. 37:972-1005, 1952.

drapes and position for the second gland.

Hypotension is expected on shift of posture and may be counteracted by intravenous neosynephrine. Every effort is made to avoid renal injury. The right adrenal, which is higher and often less accessible than the left, may overlie the vena cava or indent the liver and must be removed with extreme care.

Solutions of pure cortisone or compound F are infused intravenously throughout operation and for the next four to eight hours, at the rate of 10 to 12 mg. per hour, an excellent method of supplying urgent need.

The operative position is maintained until consciousness returns and the condition has been stable for at least two hours.

Postoperatively, 50 mg. of cortisone is given every six hours for two days, then slowly reduced within ten days to 25 mg. per day injected intramuscularly. Salt tablets may be necessary, and in a few cases, 0.5 to 1.5 mg. of desoxycorticosterone acetate is injected every day or two for a time.

Later, 12.5 to 37.5 mg. of cortisone is administered orally twice a day before meals. During periods of infection or stress, 50 to 100 mg. of cortisone a day and 2 to 5 mg. of desoxycorticosterone acetate are supplied.

The tendencies to sodium chloride depletion and potassium retention must not be forgotten.

Improvement in the general condition is probably due to loss of salt and secondary fall in blood pressure rather than to alteration of the underlying disease.

Adrenalectomy affects the hormone pattern in 2 important ways: circulating steroids are changed according to type of replacement, and unpredictable variations in the levels are stopped.

¶ ADDISON'S DISEASE and hypopituitarism may be diagnosed by a simple water-loading test based on the inadequacy of diuresis in these conditions. Louis J. Soffer, M.D., and J. Lester Gabrilove, M.D., of Mount Sinai Hospital, New York City, use the following technic: The 8 A.M. urine of a fasting patient is discarded and 1,500 cc. of tap water is given orally over a fifteen- to twenty-minute period. Voided specimens are then collected for a five-hour period and measured. Patients with Addison's disease or hypopituitarism usually excrete less than 800 cc. Healthy persons will excrete more than 1,200 cc. Cortisone, 50 mg. by mouth four hours before ingestion of fluid, increases the urinary excretion in primary adrenal insufficiency and improves the water tolerance in hypopituitarism. Intramuscular injections of 40 mg. of ACTH result in increased output in the instances of pituitary deficiency but may cause antidiuresis in Addison's disease, probably because of contamination with a factor from the anterior lobe.

Metabolism 1:504-510, 1952.

Exercises using the arms above the level of the shoulder successfully relieve subdeltoid bursitis symptoms.

Management of Subdeltoid Bursitis

JOHN F. CULLINAN
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A FEW ten-minute periods of simple exercise may completely alleviate acute or chronic subdeltoid bursitis, if no complications have developed. When the arms are moved above shoulder level, circulation can be stimulated and spasm relaxed without painful impingement on sensitive parts.

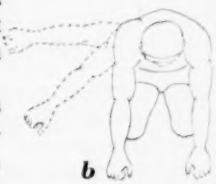
John F. Cullinan begins the routine with the patient on hands and knees, then continues with ball-throwing in upright position.

All symptoms were eliminated in a series of 70 cases, and no recurrence was reported up to the time of writing. Calcium deposits were noted in 12 of 20 persons with chronic disease and in 21 of 50 with the acute type. Only 9 had received other therapy, such as irradiation or novocain injection.

Although people with subdeltoid bursitis are always afraid to move the arms from the typical position of adduction and internal rotation, quadrupedal posture can be assumed with comfort. The patient's attention is called to the fact that the arm has thus shifted 90 degrees.

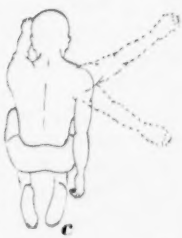
a

The subject is asked to extend the humerus back and up, parallel to the trunk, then move as far as possible in forward flexion (Fig. *a*). The exercise is repeated several times.



b

Next, the arm is raised outward from a supporting position to horizontal abduction and returned (Fig. *b*).



c

The third exercise starts with the humerus extended parallel to the trunk. The arm is repeatedly moved outward and forward in the same plane, then returned to starting position (Fig. *c*).

The whole purpose of treatment, arm exercise above shoulder level, is achieved in upright position. The patient is asked to toss an air-inflated ball such as a basketball against a wall about 2 ft. away, aiming at a point above his head.

After a few gingerly attempts, the patient will raise the involved

A new and conservative approach to the management of uncomplicated subdeltoid bursitis. Am. Pract. 3:998-1003, 1952.

arm above the shoulder and even throw the ball to the ceiling without being urged. Range of painless motion is then usually complete.

Treatment is based on the observation that subdeltoid bursal lesions rarely affect persons whose occupations require much use of the arms in the upper range. Among primates, the greatest functional activity is possible in the arboreal position. These animals are apparently immune to subacromial bursitis.

Human involvement occurs in two distinct forms, which cause either [1] tenderness on digital pressure, but little limitation of movement, or [2] spasm of the adductor-internal rotator muscle group.

Tenderness indicates intrabursal tension, which is reduced by increased circulation.

Muscular spasm is relieved when the opposing muscle group contracts when the arm is rotated medially.

Management of Severe Systemic Tetanus

FREDERICK H. VAN BERGEN, M.D., AND
JOSEPH J. BUCKLEY, M.D.

WHEN breathing is impeded by violent muscular spasm, emergency measures such as employed for poliomyelitis may prolong life until specific antitoxin and antibiotic therapy can take effect.

A 5-year-old girl apparently dying of severe systemic tetanus was saved by production of complete flaccid paralysis, use of an artificial respirator, and withdrawal of depressing sedation, report Frederick H. Van Bergen, M.D., and Joseph J. Buckley, M.D., of the University of Minnesota, Minneapolis.

Tracheotomy is done using intravenous anesthesia with an extremely short-acting barbiturate and Flaxedil, a synthetic curariform drug. Effects of the latter are readily counteracted if necessary by the bromide Tensilon and by Prostigmin.

After tracheotomy, the patient is placed in a Drinker-Collins respirator in Trendelenburg position to facilitate postural drainage of tracheobronchial tree. A tracheotomy inhalator, equipped to deliver a helium-oxygen mixture, is attached by a T-type inner cannula.

Flaxedil is given in doses sufficiently large and frequent to prevent tetanic reaction to stimuli. In the case described, amounts varied from 10 to 60 mg. per hour and six days of continuous curarization were necessary. Body position is changed and aspiration done often. Roentgenograms of the chest are made daily, and bronchoscopic examination is performed when needed to remove mucous plugs. Antibiotics are used freely to prevent or reduce pulmonary infection.

The management of severe systemic tetanus. Anesthesiology 13:599-604, 1952.

Anatomic alterations caused by operations for rectal cancer may create several urologic problems.

Urologic Complications of Rectal Excision

P. C. WATSON, M.D., AND D. INNES WILLIAMS, M.D.
St. Mark's Hospital, London

RETENTION of urine and incontinence are frequent complications of excision of the rectum for cancer, especially in men.

Combined excision of the rectum produces a permanent alteration in the anatomy of the pelvic viscera, state P. C. Watson, M.D., and D. Innes Williams, M.D. In men, the entire bladder and prostate gland are displaced posteriorly toward the sacrum. In women, the displacement of the bladder is very slight, even after coincident hysterectomy.

Urinary *incontinence* will result from a decrease in efficiency of the external sphincter and a diminution in the urethral curvature and, hence, of urethral resistance. Also lost is the levator ani, which is useful in containing an overfull bladder. Incontinence is still more likely to occur if prostatectomy is done after combined excision of the rectum.

Gradual improvement is almost invariable because the efficiency of the external sphincter will increase through voluntary effort. Urinary incontinence may be corrected by exercises—stopping and restarting the external sphincter during voiding.

The simplest operative procedure is increasing the urethral resistance by constricting the bulbous urethra. However, the hazard exists that difficulty in micturition or a large residual urine will also be produced.

Urinary *infection* is frequent after combined excision of the rectum, usually appearing in three or four days. If the indwelling catheter is removed within twenty-four hours and no subsequent retention occurs, infection is very rare.

Urinary infections are not serious provided gross stasis is avoided. Simple continuous drainage is the best way to prevent stasis, using sterile tubing and a collection bottle.

Many factors promote urinary *retention* after excision of the rectum. Any recumbent individual is at a disadvantage when trying to micturate obliquely upward and, after combined excision, the patient has to void almost vertically upward.

Prostatic enlargement accounts for urinary retention in some cases, as does old age with poor physique.

Pelvic nerve injury may cause urinary retention and incontinence. The condition is a definite syndrome resulting from loss of detrusor power and probably arises

The urological complications of excision of the rectum. Brit. J. Surg. 60:19-28, 1952.

from failure to divide the fascia of Waldeyer. Stages of the entity, seen only in male patients, are as follows:

In the first stage, when the catheter is removed a few days after operation, little or no urine is passed and the bladder may become considerably distended. A further period of bladder drainage is usually instituted and, when discontinued, the second stage develops.

Micturition is then possible, but is accompanied by incontinence, both diurnal and nocturnal, and often by severe urinary infection. The amount of residual urine, at first large, diminishes gradually. In the third stage, the residual urine is absent or minimal, and incontinence continues although the bladder may be of large capacity.

In *postoperative management* of patients who have had excision of the rectum, an indwelling catheter is advisable for at least two or three days. The catheter should be of soft rubber latex, self-retaining, and size 16F. The patient should not be confined to bed by the catheter but allowed periods of activity.

The catheter should be removed by about the fourth day and in the morning so that, if retention occurs, the condition will become obvious before the middle of the night. If retention is complete, kneeling in bed may be profitable because gravity then aids micturition. Carbachol may be valuable for the young or middle-aged patient.

If these measures do not succeed, the catheter is reinserted before the bladder becomes unduly distended and is usually left in for another five days. Repeated removals and reinsertions cause trauma.

If urine is passed, however satisfactory micturition seems, the residual should be determined in twelve to twenty-four hours. Persistent retention or a large volume of residual urine after the patient has been up for several days warrants cystoscopic examination.

In correcting the retention, great care must be taken not to produce incontinence.

¶ OCCULT CARCINOMA within benign hypertrophy of the prostate gland is not uncommon. In 9 of 98 suprapubic operations for clinically diagnosed nonmalignant enlargement of the gland, Morris Labess, M.D., of Mount Sinai Hospital, Philadelphia, found malignant tissue by histologic study. The patients were 44 to 95 years of age. Preoperative roentgen examinations showed no metastases and results of serum acid phosphatase determinations were within normal limits. A follow-up study of 41 similar cases evincing microscopic cancerous areas reveals 29 survivors, 21, or 72%, of whom have lived at least five years since the operation. The occurrence of metastases in only 3 of these patients indicates the value of clean enucleation of the overgrown portion of the organ.

J. Urol. 68:893-896, 1952.

Chemotherapy, useful in control of urinary infection, does not replace investigation and surgical procedures.

Treatment of Urinary Infections

W. LESLIE BUSH, M.D.
Dallas

THERAPEUTIC action of urinary antiseptics depends upon renal excretion and upon adequate concentration of the drugs in the urine.

Before administration of a urinary antiseptic, renal function should be determined. Satisfactory function is indicated by a specific gravity of 1.024 or above after eighteen hours of dehydration or of 1.020 or higher for a random specimen which does not contain sugar.

Excretory urograms should be made when results are not favorable within the first two weeks of treatment. When such urograms prove unsatisfactory, then cystoscopic studies, ureteral catheterization, and bilateral ureteropyelograms are needed. Except in cases of complete ureteral obstruction, this instrumentation should be done after the acute stage of the infection has subsided.

For effective treatment of nonspecific urinary infection, W. Leslie Bush, M.D., recommends selection of the urinary antiseptic based upon the particular organism disclosed and maintenance of adequate urinary tract drainage and sufficient fluid intake so that the patient's daily output is not less than 1,500 cc.

For acute infections, the chosen antiseptic should be administered for one to two weeks, unless circumstances definitely warrant stopping the drug earlier.

Sulfonamides—High blood levels are not necessary to obtain a bactericidal urinary concentration of the sulfonamides. Usually 60 gr. daily for one to two weeks is sufficient. With the triple sulfonamides, an equal dose of sodium bicarbonate is given as well as enough fluid to maintain a urine output of 1,500 cc. daily.

Renal complications are less frequent with the triple sulfonamides than with sulfathiazole or sulfadiazine alone, but febrile reactions are not infrequent and sensitivity may occur.

The triple combinations are effective against most urinary tract organisms except *Pseudomonas*, *Proteus*, and *Streptococcus fecalis*.

Gantrisin is effective against *Proteus*, *Aerobacter*, *Alcaligenes fecalis*, staphylococci, and streptococci and is the only sulfonamide highly soluble and effective in acid urine. Gantrisin is well tolerated without use of forced fluids or alkalis.

Antibiotics—Penicillin is highly effective against gram-positive or-

The treatment of nonspecific urinary infections. South. M. J. 45:869-874, 1952.

ganisms, especially the staphylococci. Since both insufficient dosage and too short a period of administration favor development of resistant strains of organisms, the initial dose of penicillin should be considerably larger than succeeding ones and the drug should be given for five to seven days even though the urine may be free of pus and the Gram stain reveals no organisms.

For pure and mixed infections with gram-positive organisms, the treatment with penicillin should be supplemented by sulfonamides or some other antibiotic.

Streptomycin and dihydrostreptomycin are not much used in the treatment of gram-negative urinary tract infections because of frequent development of drug resistance. These agents should be reserved for tuberculosis of the urinary tract.

Choice of the newer antibiotics for use in specific infections of the urinary tract is summarized in the accompanying table.

INFECTING ORGANISM	MOST EFFECTIVE DRUGS
Escherichia intermedium	Aureomycin, terramycin
Paracolon coliforme	Aureomycin, terramycin
Escherichia coli	Mandelamine, Gantrisin, and sulfacetimide; broad-spectrum antibiotics
Aerobacter aerogenes	Terramycin, aureomycin
Pseudomonas aeruginosa	Polymyxin, aureomycin, terramycin
Streptococcus fecalis	Mandelamine, aureomycin, terramycin
Proteus vulgaris	Gantrisin, chloramphenicol
Alcaligenes fecalis	Gantrisin, aureomycin, terramycin
Staphylococci	Penicillin, terramycin

¶ BILE ACIDS administered before cholecystographic examination improve visualization of the gallbladder by iodoalphionic acid (Priodax). Alfred M. Berg, M.D., and Joseph E. Hamilton, M.D., of the University of Louisville and the Veterans Administration Hospital, Louisville, find that the biliary stasis usually responsible for nonvisualization is relieved by giving 2 tablets of Decholin or Ketochol before each meal for eight to ten days, discontinuing medication on the day of the examination. Double doses, 12 tablets, of the radiopaque medium have become routine. With this regimen, roentgen diagnosis was possible in 7 of 10 patients previously showing inadequate concentration of the dye. Normal films suggest liver or pancreatic disease as a cause of symptoms; presistent invisibility indicates probably severe cholecystic morbidity.

Surgery 32:948-952, 1952.

Colonic neoplasms as small as 2 to 3 mm. may be demonstrated by good double contrast roentgenograms.

Double-Contrast Examination of Colon

CLYDE A. STEVENSON, M.D.

University of Texas Postgraduate School of Medicine, Temple, Tex.

THE most reliable measure for the early detection of carcinoma of the colon is the double-contrast barium enema. Meticulous attention to details is necessary for production of diagnostic roentgenograms, states Clyde A. Stevenson, M.D.

No matter what the expected disease of the colon, proper preparation is of utmost importance so that the bowel is rid of as much solid and fluid material as possible and the mucosa is ready for adherence of a thin film of barium sulfate suspension. With gross bleeding, severe diarrhea, or obstruction, preparation cannot be thorough.

Castor oil is the best laxative available for cleaning the colon. Soapsuds enemas are also necessary.

The ideal preparation is:

1] No supper. Fecal residue is definitely increased if supper is allowed.
2] Castor oil, 1 oz., at 7 P.M.
3] Three warm soapsuds enemas, not to exceed 1 qt. apiece, at fifteen-minute intervals beginning the next morning at 6 A.M.
4] Light breakfast at 7 A.M.
5] Colon examination at 8 A.M.

The barium preparations IX and Sta-Barium are satisfactory for contrast enemas. Facilities should be available for mixing and heating to body temperature.

The following equipment is adequate: Carman metal enema tip, Weber insufflator, Bardex-Weber balloon catheter, sponge rubber ball with hole bored in to fit over shaft of the Carman tip, and a 2-qt. enema can.

The fluoroscopist begins the examination by allowing the barium to flow unhindered from a 3-ft. height until a point between the splenic flexure and midtransverse colon is reached. Palpation and rotation of the patient are then used to visualize every loop and flexure. This should not consume over thirty seconds.

The patient is then allowed to evacuate the barium quickly. No more than one minute should be spent. Air is introduced under fluoroscopic control by the Weber insufflator. The colon is distended to at least normal size by rapid introduction of small amounts of air.

Stereoscopic roentgenograms are rapidly made with the patient supine and then prone. Sometimes an oblique position is advisable.

Inability to retain the enema is often due to apprehension. If the

Technic of the double contrast examination of the colon. S. Clin. North America 32:1531-1537, 1952.

patient cannot retain the enema or has rectal tears, the sponge rubber ball is slipped over the shaft of the Carman tip and an assistant presses the ball against the perineum. The Bardex-Weber catheter is a more efficient barrier, but caution must be exercised to avoid overdistention of the balloon or colon.

The examiner learns by experience the best point in the transverse colon at which to stop the barium flow. In spite of best efforts, about 15% of examinations fail to show good double contrast in the cecum and portions of the colon because of insufficient barium or air and must be redone.

Too much barium throughout the colon after evacuation definitely interferes with the double-contrast examination. In this instance air should be injected to stimulate further evacuation. After the second evacuation, air is again injected and the films exposed.

Excessive fecal material or retained enema makes the diagnosis of any small lesions almost impossible.

Roentgenography in Asthma

C. JIMÉNEZ DIAZ, M.D., C. ALBERT, M.D., V. L. BARRANTES, M.D., F. LAHOZ, M.D., L. SALGADO, M.D., AND C. LAHOZ, M.D.

Two roentgenograms in rapid succession are useful for evaluating the pulmonary function of asthmatic patients.

The first film is made during forced inspiration. While the patient remains in exactly the same position, a second film is immediately exposed in deep expiration. The films are then superimposed one on the other and compared. To assure accurate superimposition, the spinal column, especially the first dorsal vertebra, serves as a guide. The changes of the diaphragm, ribs, and clavicles during expiration are then sketched on the film made during inspiration.

In healthy persons, the movement of the diaphragm prevails over that of the ribs and clavicles. With uncomplicated asthma, the action of the diaphragm is usually greatly diminished or absent, explains C. Jiménez Diaz, M.D., C. Albert, M.D., V. L. Barrantes, M.D., F. Lahoz, M.D., L. Salgado, M.D., and C. Lahoz, M.D., of the University of Madrid. Movements of the ribs and clavicles are increased, indicating the use of complementary respiratory muscles.

Two other types of movement may appear in uncomplicated asthma cases. The thorax may remain rigid while the diaphragmatic excursions are normal. In such subjects, the clavicles show increased excursion. Finally, the diaphragm and ribs may be much restricted and the clavicles have greatly increased motion.

New roentgenographic technique in bronchial asthma. J.A.M.A. 150:1297-1298, 1952.

Carcinoma and lymphoma of the tonsil are more easily recognized than cured.

Cancer of the Tonsil

H. A. TELOH, M.D.
Northwestern University, Chicago

MALIGNANT growth of the tonsil is the second commonest tumor of the pharynx. Diagnosis usually is made late and the results of therapy are poor, states H. A. Teloh, M.D.

Cancer of the tonsil occurs overwhelmingly among older men. Epidermoid carcinoma is most frequently seen but transitional-cell carcinoma, lymphosarcoma, reticulum-cell sarcoma, and giant follicular lymphoma also occur.

The usual symptom with cancer of the tonsil is a mass in the upper cervical region. Sore throat is the next commonest symptom. Other indications are pain referred to the ear and radiating up to the temporal or occipital areas of the head, weight loss, dysphagia, pain in the throat, and soreness of the mouth.

The lesion as visualized is a nodular, ulcerated growth which may involve the anterior or posterior pillar or appear in the tonsillar fossa proper. Even in early stages, induration is prominent and can be felt by examination with the gloved finger. In late stages the neoplasm may extend laterally and be continuous with the mass of involved cervical lymph nodes. Occasionally the tumor is papillary with little ulceration and infiltration.

Lymphoma of the tonsil is usually globular, frequently with no ulceration. The tumor often extends into the oropharynx and causes considerable difficulty in swallowing.

Extension to regional lymph nodes occurs early.

The present accepted methods of treatment include some type of irradiation, with teleradium, external or intraoral roentgen rays, interstitial radium, or radon, either to the primary or to the metastatic lesions. Surgery for even relatively localized lesions is not often successful. With advanced lesions, operation is deforming and technically difficult and rarely results in cure.

The five-year survival rate for all patients with lymphosarcoma is 22%; with carcinoma, 5%. The occurrence of metastases to cervical lymph nodes is important in determination of the outcome. Of the patients who are treated before clinical cervical node metastases, 20% are alive in five years. This figure falls to 4% if unilateral adenopathy exists, and to zero with bilateral adenopathy.

For prognosis and comparison of results of therapy, the following classification is useful:

Stage I—Small tumors in situ or localized to a small area of the ton-

Cancer of the tonsil. Arch. Surg. 65:693-701, 1952.

sillar pillars, no adenopathy. The outlook is best with this type.

Stage II—Localized tumors with or without extension to the pillars but not having extension to other continuous structures.

Stage III—Tumors with extension to the buccal mucosa, base of the tongue, soft palate, uvula, or hard palate. Cervical glands are usually enlarged. The best hope for the future is recognizing such growths before this advanced stage.

Stage IV—Tumors with extensive involvement of the pharynx and oral cavity, massive adenopathy, or distant metastases. Patients live less than a year.

Cold Weather Chapping of Skin

L. EDWARD GAUL, M.D., AND G. B. UNDERWOOD, M.D.

Two weather changes, dew point and barometric pressure, produce chapping.

Skin suffers from rapid desiccation, particularly when an interval of low barometric pressure and extremely moist air is followed by sudden high pressure and dryness with low dew point. The dew point, or temperature at which moisture begins to condense into visible form, is a useful index of actual humidity. With low values, chapping is often severe.

L. Edward Gaul, M.D., and G. B. Underwood, M.D., of St. Mary's Hospital, Evansville, Ind., kept a weather log and recorded chapping dates of 8 subjects for a year. Lesions were most frequent and severe from November through January.

Chapping is hastened by wind or by wetting of skin and quick evaporation. Dryness may be increased by hot water, soap, or the oils, lotions, and creams used for protection. Even hospital patients may be affected by winter weather. A day's injury sometimes takes weeks to heal.

Changes vary from dryness and itching to erythema, papulation, edema, fissures, bleeding and crusting, or full-blown nummular eczema. Irritating medicaments should be removed. Comfort may be restored by artificial humidification and a layer of stockinette over affected areas.

A meteorologic instrument such as the psychrometer, which determines humidity, helps in determining chapping conditions.

Relative humidity, the percentage of atmospheric saturation level at a given temperature, is an unreliable index because warm air can hold more water vapor than cold air. For example, relative humidity of 80% indicates far less moisture at 40 than at 60° F.

Local weather bureaus should be able to forecast periods of chapping conditions and warn residents.

Relation of dew point and barometric pressure to chapping of normal skin. J. Invest. Dermat. 19:9-19, 1952.

Repair by vascularization of the tear may be achieved through conservative measures with lumbar disk lesion.

Treatment for the Lumbar Disk Syndrome

E. J. CRISP, M.B.
Guy's Hospital, London

THE vast majority of lumbar disk lesions, with or without sciatica, can be satisfactorily and permanently relieved by conservative treatment. Surgery should be used, emphasizes E. J. Crisp, M.B., only when a thorough conservative regimen fails to alleviate severe pain.

The lumbar disk lesion can occur at any age and consists of a small posterolateral annular bulge of the disk, the result of partial splitting of the fibrocartilage. Only when the tear is complete does the nucleus actually protrude.

In spite of the fact that the disk and the confining annular ligament are comparatively avascular, the lesion does heal spontaneously if conditions are favorable. Lumbosacral disks removed from cadavers show vascularization of annular fissions and tears. When the ventral aspect of the rabbit's lumbar disk is incised, superficial annular fibers heal in three weeks.

A lumbar disk lesion may be compared to the bulge in the wall of a tire after some fibers in the tire have ruptured. As more and more fibers rupture, the bulge becomes bigger until the inner tube protrudes through a complete rent.

Recurrent attacks of acute low back pain are indicative of recurrent ruptures of annular fibers. At each rupture, an inflammatory reaction and, possibly, local edema appear and, with the annular bulge, stretch or irritate the nerve root.

Early diagnosis is an essential part of conservative treatment, which is designed to allow any bulge or protrusion to recede so that repair will occur.

Bed rest on a firm mattress or bed boards usually suffices to relieve most attacks of acute lumbago completely but fails in severe cases because some movement is necessary, as in using a bedpan.

The plaster jacket is the best measure for treatment of disk lesions and is worn for at least four months after all pain has disappeared. The jacket splints the back, relieves pain rapidly, and allows the patient to move about. The patient should wear a lumbar brace for six months or more after the plaster jacket is removed.

In cases of reversed lumbar curve, plaster is applied with spine kyphosed. A normal curve usually returns in a few days, at which time a new plaster is applied with the spine in normal position.

Sustained traction is effective for cases of reversed lumbar curve. Two or three treatments usually

Conservative treatment of the lumbar disk syndrome. Proc. Roy. Soc. Med. 45:541-542, 1952.

suffice. A plaster jacket is then applied to prevent recurrence and allow the lesion to heal. Traction is also effective to relieve residual pain after long immobilization.

Manipulation, excluding traction, should not be used for acute disk lesions, but may be valuable in painful chronic stages of the condition. Gentle, repeated manipulations are done every few days without anesthesia.

Patients should be taught how to lift heavy objects by bending the knees. Hyperextension exercises are valuable, but not exercises to increase lumbar flexion; this movement should return spontaneously.

Herniated Nucleus Pulposus Operations

WILLIAM NACHLAS, M.D.

WHEN surgical intervention is necessary in simple cases of herniated nucleus pulposus, disk excision alone seems advisable. Spinal fusion can be performed later if needed.

The Research Committee of the American Orthopaedic Association investigated the five-year results of 374 patients from several institutions, reports William Nachlas, M.D., of Johns Hopkins University, Baltimore, chairman of the committee. Of these, 256 were treated by disk removal only, while 118 had fusion operations performed immediately after the disks were removed.

Comparative results show that the hospital stay after disk excision averages fifteen days, but fifty-eight days after the combined operation. The period of convalescence is also shorter without fusion. Shock and phlebothrombosis occur more often as complications with disk removal and fusion, but the figures are not significant.

Residual backache is noted in slightly more than half of those who have simple excision, and in slightly less than half after the combined technic. Residual symptoms in the lower extremities are almost the same after either type of operation.

The number of satisfactory results is almost 10% greater if fusion is combined with excision, and the best results, few residual difficulties or none, are twice as frequent. Relatively, the number of patients requiring further operation is almost the same after either procedure.

Although these figures would seem to favor the combined operation, the difference is not spectacular and, on a statistical basis, is of borderline significance. Furthermore, spinal fusion is an added operation, and the effectiveness of fusion is probably no greater if done at the time of disk excision than if performed later.

End-result study of the treatment of herniated nucleus pulposus by excision with fusion and without fusion. J. Bone & Joint Surg. 34-A:981-988, 1952.

In caring for fractures, the therapy should be adapted to the fracture, not the fracture to the therapy.

Problems in Fracture Treatment

H. EARLE CONWELL, M.D.
Conwell Orthopaedic Clinic, Birmingham

DISABLING fractures are increasing with the prevalence of automobile and airplane travel and changes in industry and other technical pursuits.

Function is best restored by conservative methods, believes H. Earle Conwell, M.D. On suspicion of broken bones, one should "splint them where they lie" and secure fully adequate radiograms.

Most fractures can be reduced by closed manipulation and immobilized by circular plaster casts. During convalescence, the involved region is observed frequently and exercise started early, yet without premature weight bearing.

When splints were applied on the field in World War I, mortality of compound fracture of the femur dropped from nearly 80 to 16%. The supporting device should be simple and include joints above and below the affected area.

Fractures are often unnoticed. Even slight injury of buttocks or back in a minor fall may compress vertebrae but cause no pain whatever in the spine. Anteroposterior, lateral, and oblique roentgen views are advisable.

Displaced fragments should be reduced promptly. However, if soft tissues are considerably damaged and malposition unlikely, a simple wire or board splint is used with hot wet boric or saline dressings for one or more days. Bandages are changed and lesions inspected every twelve to fourteen hours.

To aid reduction, tissues are relaxed by continued traction, massage, or anesthesia, local, spinal, or general. Whereas a bone shaft may recover without perfect alignment, joints should have the best position obtainable.

Skillful closed technic should not cause further serious harm, nor are repeated attempts needed before deciding on open or traction procedures.

Bandages, splints, and casts must never be too tight. The patient is observed often in the first hours after reduction and every few days thereafter, though commonly without palpation. As a guide to treatment, the surgeon should not hesitate to remove a cast or splint temporarily for thorough examination.

Skeletal traction is valuable in selected cases, though rarely for children, since epiphyses may be endangered. Steady, continuous, and easily regulated force is employed with perfect comfort, while

Certain problems in fracture treatment. J. M. A. Georgia 41:343-346, 1952.

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Natural bile or unconjugated bile salts	Choleretic	Stimulates secretion of normal bile by the liver	++	Utilizes increased amounts of bile of normal viscosity
Dehydrocholic acid	Hydrocholeretic	Stimulates secretion of fluid bile by the liver	+++	Utilizes copious amounts of free-flowing bile – adequate in absence of spasm of sphincter of Oddi
Dehydrocholic acid, homatropine methylbromide, phenobarbital (CHOLAN *hmb*)	Hydrocholeretic, parasympatholytic, sedative	Stimulates secretion of fluid bile by the liver, and relaxes sphincter of Oddi spasm	++++	Utilizes copious amounts of free-flowing bile and relaxes smooth muscle spasm for greater therapeutic efficacy

the unaffected part of the limb is free for active and passive motion.

Disadvantages are the risks of infection by foreign matter in the medullary canal, distraction or rotation of fragments, and nonunion.

For skin traction, moleskin adhesive plaster is superior to zinc oxide adhesive. Skeletal or adhesive traction should be removed when alignment is good, enough callus formed, and fixation can be applied.

Open reduction is done by the method most familiar to the operator, or an expert is consulted. Nonsurgical union may be slow and a delayed union is not a nonunion until three or four months after injury. In such cases intervention is too often performed prematurely.

As some fractures are due to systemic disease, the patient's general health may require special care.

Physical therapy should be directed by a physician and if possible by a physiatrist. Ordinary heat and light are employed, as well as diathermic and other elaborate machines. As soon as the support can be removed for a time, hot and cold contrast baths, massage, and other measures are helpful. The most effective exercise is occupational therapy.

A broken knee or ankle may become unstable and fail to heal if walking without support is allowed too soon. However, a plaster splint and walking iron may be used shortly after ankle fracture when bone is not much involved and fragments are securely aligned. Fortunately, in most cases pain is a reliable safeguard.

Recovery will depend on the invalid's cooperation and faith in the doctor.

Intrathecal Tuberculin in Tuberculous Meningitis

EARNEST C. ATKINS, M.D., AND MARTIN M. CUMMINGS, M.D.

IN FATAL cases of tuberculous meningitis, a thick collar of exudate surrounding the midbrain is almost always noted. Thus the tubercle bacilli are shielded from the action of streptomycin. The spinal canal block may be broken by a fibrinolytic reaction produced by injection of Purified Protein Derivative into the sensitized ventricular system which causes a localized response in the affected area.

Successful use of intrathecal P.P.D. and streptomycin for a 24-year-old man with spinal canal block is described by Earnest C. Atkins, M.D., and Martin M. Cummings, M.D., of Lawson Veterans Administration Hospital, Chamblee, Ga. Ventriculograms demonstrated the block between the third and fourth ventricles before therapy. This type of intrathecal therapy is dangerous and must be used with great caution.

Tuberculous meningitis. New England J. Med. 247:715-717, 1952.

How to treat Seborrheic Dermatitis of the scalp

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Clinical reports of 400 cases[1,2,3] showed *Selsun* to be effective in 92 to 95 percent of cases of common dandruff, and in 81 to 87 percent of all cases of seborrheic dermatitis. Many of these patients had previously tried other scalp medications without satisfaction. Optimum results were obtained with *Selsun* in four to eight weeks, although itching and burning symptoms were alleviated after the second or third application in the majority of cases.

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References:

1. Slinger, W. N., and Hubbard, D. M. (1951), Arch. Dermat. & Syph., 64:41, July.
2. Slepyan, A. H. (1952), Ibid., 65:228, February.
3. Ruch, D. M. (1951), Communication to Abbott Laboratories.

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Neurologic examinations are imperative in cases of psychosis; an operable brain tumor may be found.

Mental Symptoms of Brain Tumor

WERNER SIMON, M.D.
University of Minnesota, Minneapolis

ACCURATE diagnosis of brain tumor remains one of the most difficult problems in medicine.

The typical triad of headache, vomiting, and choked disk—evidence of increased intracranial pressure—is often a late manifestation, seen only after the tumor has attained inoperable size. Since mental symptoms and personality changes are noted early in many individuals, the importance of recognizing psychiatric difficulties as an indication of brain tumor is evident.

Practically all patients with brain tumors have some mental impairment in the form of apathy, defective attention and concentration, dullness of intellect, and slowness of response, supervened in the later stages by dementia, drowsiness, stupor, and coma. The personality alterations may be indistinguishable from aberrations produced by other organic brain diseases.

Psychoneurotic disorders often precede more pronounced mental abnormalities and are easily disregarded or misinterpreted. Patients who have brain tumors with psychosis are often placed in mental institutions without recognition of the true nature of the disease during life. The psychiatrist should not be so preoccupied with psychotic symptoms and behavior that the progressive signs of an intracranial lesion go unrecognized. Tumors wrongly diagnosed as psychosis sometimes turn out to be benign operable meningiomas. Moreover, a brain tumor may occur in a psychotic patient.

All patients with psychosis as a presenting symptom should have careful and repeated neurologic examinations, utilizing every diagnostic aid, including electroencephalography, psychologic tests, and, if necessary, angiography, pneumoencephalography, ventriculography, and isotopic encephalometry, to exclude a possible organic basis.

Werner Simon, M.D., believes that multiple factors are involved in the production of mental illness associated with intracranial neoplasms. Psychiatric disturbances may be either focal, due to destruction or irritation of brain tissue in a specified location, or diffuse, as a result of altered physiology by intracranial pressure. The personality makeup of the patient determines the superimposed emotional reaction, which may be depression, apprehension, or irritability.

(Continued on page 134)

The diagnosis of brain tumor masked by mental symptoms. Mil. Surgeon 111:411-421, 1952.

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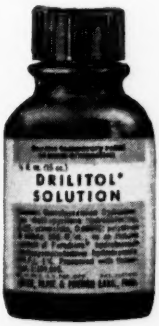
each nostril every 3 hours

OR



'Drilitol' Solution

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Drilitol Solution
1 dropperful in each nostril
4 or 5 times a day

No psychiatric syndrome is specific for brain tumor although some believe that certain symptom-groups are typical of the location of the tumor. The mental deviations frequently described as characteristic of frontal or temporal lobe tumors are sometimes thought to be nonspecific and to occur as often with tumors of either region.

However, with frontal lobe tumors, personality changes are frequent and pronounced. The so-called frontal lobe syndrome consists of gradual change of personality, euphoria, lack of inhibition, irresponsible childishness, and a tendency to facetiousness, punning, and practical joking. Even though the same traits may be observed with temporal lobe tumors and degenerative organic brain disease, olfactory, visual, or gustatory hallucinations will frequently occur with temporal lobe tumors.

Parietal tumors may produce astereognosis, aphasia, or apraxia; occipital tumors—unformed visual hallucinations; cerebellar tumors—gait and balance disturbances; corpus callosum tumors—changes similar to frontal lobe tumors; involvement of the basal ganglia—athetotic or choreiform movements, parkinsonian features, and sometimes somnolence. Unprovoked laughing or weeping is indicative of thalamic involvement.

Premenstrual Tension with Psychosis

E. Y. WILLIAMS, M.D., AND L. R. WEEKES, M.D.

OCCASIONALLY premenstrual tension is associated with psychotic episodes. Manic or psychomotor activity or catatonic schizophrenia may result.

Early symptoms include headache, stomach-ache, dizziness, spots before the eyes, inability to concentrate, pains, weakness, confusion, and insomnia. At the onset of menses patients often gain from 4 to 6 lb., which are lost afterward. Blood pressure is low or normal. Feeding, dressing, and bathing of the patient may be necessary when the catatonic features appear.

Psychomotor activity is shown by constant fixing or rearranging of things in a bizarre manner while jabbering, oblivious of others.

For treatment, E. Y. Williams, M.D., and L. R. Weekes, M.D., of Howard University, Washington, D.C., give ammonium chloride and restrict sodium to prevent water retention. Progesterone may be useful, presumably by antagonizing the high estrogen levels. B complex vitamins are given. Psychotherapy may be useful. When psychotic symptoms are severe, more radical treatment may be needed.

Premenstrual tension associated with psychotic episodes. J. Nerv. & Ment. Dis. 116:321-329, 1952.

CARBONATED BEVERAGES IN GERIATRIC NUTRITION

A recent report to the American Institute of Nutrition[1] shows that free self-selection of diets often provides a regime deficient in calories. In 130 women between 30 and 85 years of age, about half took under 1800 calories a day—an amount which led to negative nitrogen balance. The period between 40 and 70 years, the authors of this report suggest, is one of metabolic stress for many women, and dietary instructions must be as individualized as medical care if the nutritional reserves of the patient are properly protected.

Since peak muscle efficiency falls off steadily to a low point unless sugar is given between meals and since sweetened carbonated beverages spare the action of expensive proteins in the body, they are pleasant, effective and economical dietary supplements.

Used routinely in hospitals for a variety of purposes, they are of particular value for the female geriatric patient under stress, or when nervous and muscular fatigue are imminent. On the average, a bottle of carbonated beverage contains 100 calories in a form rapidly transformed into food energy.

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WASHINGTON 6, D. C.

1. Ohlson, M. A.; Brewer, W. D.; Jackson, L.; Swanson, P. P.; Roberts, P. H.; Mangel, M.; Leverton, R. M.; Chaloupka, M.; Gram, M. R.; Reynolds, M. S.; and Lutz, R., Symposium on Geriatric Nutrition, April, 1952. Fed. Proc. 11:775, 1952.

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Adults—Total daily doses of 400 to 2,000 mg. are recommended, depending on the type and severity of the infection. Lobar pneumonia, bronchopneumonia, and some of the milder types of respiratory infections caused by organisms susceptible to 'Ilotycin' have consistently responded to doses of 100 mg. every four to six hours. For other infections, larger doses of 300 to 500 mg. every six to eight hours should be employed.
Children—6 to 8 mg. per Kg. of body weight every six hours.
Therapy should be continued for at least forty-eight hours after the temperature has returned to normal and acute symptoms have subsided.

Lilly THE ORIGINATOR OF ERYTHROMYCIN

'Ilotycin' is a powerful antibacterial of proved effectiveness* in the treatment of infections due to:

ORGANISMS	INFECTIONS
1. Staphylococci	Bacteremia, meningitis, pneumonia, osteomyelitis
2. Hemolytic streptococci	Cellulitis, erysipelas, peritonsillar abscess, pharyngitis, pneumonia, scarlet fever, septic sore throat, tonsillitis, wound infections
3. Pneumococci	Empyema, lobar pneumonia
4. Corynebacterium diphtheriae	Diphtheria carriers
5. Nonhemolytic streptococci	Some cases of endocarditis, genito-urinary tract infections

*References

1. Heilman, F. R., Herrell, W. E., Wellman, W. E., and Geraci, J. E.: Some Laboratory and Clinical Observations on a New Antibiotic, Erythromycin ('Ilotycin'), Proc. Staff Meet., Mayo Clin., *27*:285 (July 16), 1952. 2. Haight, T. H., and Finland, M.: Laboratory and Clinical Studies on Erythromycin, New England J. Med., *247*:227 (August 14), 1952. 3. Smith, J. W., Dyke, R. W., and Griffith, R. S.: Erythromycin: Studies on Absorption Following Oral Administration and on Treatment of 33 Patients, to be published. 4. Spink, W. W.: Personal communications. 5. Romansky, M. J.: Personal communications.

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Medical Forum

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Acute Upper Gastrointestinal Hemorrhage*

QUESTION: How soon after hemorrhage from the upper gastrointestinal tract should roentgenographic and endoscopic examinations be done?

Comment invited from
Ralph H. Loe, M.D.
John W. Findley, Jr., M.D.
Harold D. Harvey, M.D.
R. Russell Best, M.D.
A. E. Moon, M.D.
Gordon Donaldson, M.D.
Edward F. Lewison, M.D.
W. S. Lorimer, M.D.
Gerhart S. Schwarz, M.D.

► TO THE EDITORS: As a surgeon doing gastroscopies for the past sixteen years, and esophagoscopies more recently, I was intrigued by Dr. Eddy D. Palmer's paper on the routine immediate use of these procedures and roentgen studies for all cases of massive upper abdominal hemorrhages.

As I have frequently encountered small amounts of blood obscuring vision during gastroscopy, I have not employed this instrument during acute hemorrhage, feeling that if bleeding were serious, cleansing of the stomach would be insufficient for a clear look. On the contrary I have often employed gastroscopy after hemorrhage has ceased, and the roentgen findings have been negative.

Perhaps I have been remiss in not employing esophagoscopy, but again I feared the field would be obscured if bleeding were brisk.

Since the advent of the double balloon tube, such as Patton's, I have seen less reason to perform esophagoscopy early. This tube is used in all cases in which esophageal hemorrhages could possibly be suspected. If blood continues to be aspirated from the stomach with the tube in place, the hemorrhage is probably not due to esophageal pathology but to a gastric lesion or duodenal ulcer.

I was surprised to see that Dr. Palmer reported such a small number of hemorrhages due to duodenal ulcer and a relatively high number due to hypertrophic gastritis or erosive gastritis. I have never seen a fatal hemorrhage from hypertrophic or erosive gastritis. I have seen moderately severe hemorrhage from hypertrophic gastritis readily controlled by medical management. I have seen only slight hemorrhages from erosive gastritis. The finding of hypertrophic gastritis does not necessarily rule out duodenal ulcer.

*Modern Medicine, Oct. 15, 1952, p. 87.

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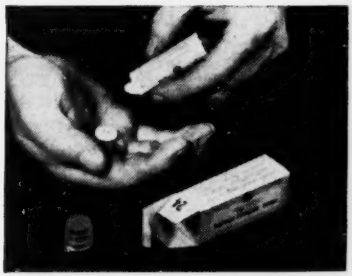

TRACINETS *provide local anesthetic action, to give prompt symptomatic relief in both infectious and non-specific sore throat. Each troche contains bacitracin 50 units, tyrothricin 1 mg. and benzocaine 5 mg.*

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Which also contain a local anesthetic for prompt relief of symptoms

SUPPLIED IN PLASTIC VIALS OF 12 TROCHES

Sharp & Dohme

Philadelphia 1, Pa.

During the war, Dr. Burger and I reported on 143 patients at a Naval hospital who were examined for upper gastrointestinal complaints. We found 23 with hypertrophic gastritis; 4 of these also had an accompanying duodenal ulcer, and I wonder if a more serious hemorrhage may not be due to associated ulcer. In this group there were also 25 cases of chronic superficial gastritis with and without erosions; none of these had a history of more than a mild hemorrhage. In a review of 95 cases of severe hemorrhage as judged by shock or 50% drop in blood count, duodenal ulcer accounted for 50% of the bleeding. Gastric ulcer, marginal ulcer, diaphragmatic hernia with ulcer accounted for 20%; gastric and esophageal varices for 9%. Hypertrophic gastritis was present in 1 case. Cancer and miscellaneous lesions accounted for the rest.

When less than 10% of patients with massive upper gastrointestinal bleeding require surgery, I cannot become very enthusiastic about the early routine use of gastroscopy, esophagoscopy, and roentgen examination. A careful history and physical examination will, in the majority of cases at least, give us a lead. Employment of the Patton tube is suggested by an enlarged liver or spleen, and liver function tests may be helpful. The use of adequate amounts of blood for the maintenance of blood volume, especially in patients beyond the age of 50, is imperative. If bleeding continues, surgery is indicated; careful roentgen examination before surgery may be helpful.

When the source of bleeding is not known, it might be helpful to do esophagoscopy as a preliminary procedure under anesthesia on the operating table.

In the patient who recovers without surgery, it is the feeling of our roentgenologist that a more diagnostic examination can be made ten days or two weeks after bleeding has stopped. If this is negative, other diagnostic procedures can be carried out.

In 1 patient with repeated hemorrhage and negative findings, the passage of a Miller-Abbott tube disclosed blood 2 ft. beyond the pylorus. At operation a leiomyoma was found in the upper jejunum.

RALPH H. LOE, M.D.

Seattle

► TO THE EDITORS: In civilian practice, the source is often apparent when massive upper gastrointestinal bleeding occurs. A peptic ulcer frequently has been demonstrated some time before the onset of bleeding, a factor which allows for some discrimination in the use of diagnostic tests. This is in contrast to the Army series reported by Dr. Palmer, wherein there were no prior diagnostic clues.

It does not seem reasonable to esophagoscope and gastroscope a recognized duodenal ulcer patient whose pain has been replaced by hemorrhage. Endoscopy could not be expected to add helpful information. But the situation is different when one is confronted with a briskly bleeding individual with no

(Continued on page 144)

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and sulfacetamide.

White Laboratories, Inc., Kenilworth, N. J.

positive recent ulcer history. Under these circumstances, esophagoscopy is urgently indicated.

If, because of established cirrhosis or Banti's syndrome, ruptured varices are suspected, esophagoscopy is nonetheless necessary for confirmation, since bleeding may arise from a varix in the stomach or from a coexistent, unrelated gastric or duodenal lesion. Differentiation of esophageal varices is imperative because their treatment is unique and must be prompt. Ruptured varices in the esophagus require a tamponade; bleeding from the stomach or duodenum requires an interval of transfusions and medical therapy, occasionally, emergency surgery.

Neither roentgen nor gastroscopic examination is distinctly dangerous during active bleeding but they are often inconclusive and are unlikely to change the immediate treatment. Fluid blood or a clot may obscure a crater.

I usually defer these examinations until about two days after gross blood has disappeared from the stools. More accurate data can then be obtained because [1] the stomach and duodenum are no longer obscured by blood, [2] the clot in an ulcer crater, if present, has had time to retract, and [3] the patient is physically and mentally better able to cooperate. Avery Jones of England has shown that gastroscopy is particularly useful in detecting superficial, rapidly healing gastric ulcers five to seven days after a hemorrhage.

JOHN W. FINDLEY, JR., M.D.
San Mateo, Calif.

► TO THE EDITORS: No harm results from immediate roentgen or endoscopic study after upper gastrointestinal hemorrhage, but in our experience such study is rarely necessary.

Diagnosis of the source of hemorrhage is usually pretty sure. Diagnostic measures can be done if it is not.

Our policy is to individualize the cases, nearly always trying conservative measures first unless, in the judgment of attending physician and surgeon, prompt operation should be done.

HAROLD D. HARVEY, M.D.
New York City

► TO THE EDITORS: I have read with interest the account of the routine approach for patients with hemorrhage from the upper gastrointestinal tract at the Walter Reed Army Hospital. The standard for a severe or massive acute upper gastrointestinal hemorrhage is not defined. Too many reports are made when the upper gastrointestinal hemorrhage is not severe; even though a patient may apparently have vomited considerable blood, the blood picture will have changed very little. A patient with a definite change in the blood picture (hemoglobin dropped at least 70% and red blood cells to 3,000,000 or less), other laboratory data, and general appearance including some degree of shock, is an entirely different problem from the patient who has simply vomited some blood without noted changes.

For some years I was reluctant

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AVAILABLE AT ALL PHARMACIES—
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to order roentgen studies on these patients, not permitting the swallowing of barium until some seven to ten days after cessation of bleeding. However, during the last ten years we have not hesitated to order roentgen studies a day or two after admission of the patient to the hospital.

In our request to the radiology department, we mention that the patient has had a severe hemorrhage and ask the roentgenologist to go lightly in his manipulations and use the minimal amount of barium. We emphasize to the roentgenologist that we are primarily interested in whether the patient has esophageal varices. We have never had any unfortunate experiences in this group of patients but most of them have received a transfusion or two before the roentgenographic study and blood replacement is always available in case a more active hemorrhage develops during the examination.

Personally, I do not believe an esophagoscopic or gastroscopic examination should be done until roentgen study of the esophagus has been completed and, in any event, I would be reluctant to order either of these for several days or until I felt that bleeding had ceased and a firm clot had formed. The effort associated with the introduction of the esophagoscope or gastroscope may dislodge a clot.

Although any hollow viscus containing a blood clot should be emptied to permit contraction to help stop bleeding, and I refer particularly to the bladder, uterus, and rectum, I would hesitate to wash out the stomach with prolonged ice-water lavage as mentioned in Dr. Palmer's article. With the bladder, uterus, or rectum, one is able to control bleeding points by fulguration, packing, or pressure, or even by ligation in the rectum, without going through a major operative procedure. It is not possible to bring the bleeding point in the stomach under control without a major operative procedure after dislodgment of a clot.

R. RUSSELL BEST, M.D.

Omaha

► TO THE EDITORS: It has been our policy to defer roentgen study of patients for a period of five to ten days after cessation of acute hemorrhage. We cannot, of course, speak positively as to the advisability of an immediate examination in these cases, since we have not had experience with such examinations; however, we will state that we have had no cause to regret the period of observation which has been our practice for a third of a century. We cannot recall one case in which we felt that this delay was in any way detrimental to the patient's welfare. This is not to say, however, that occasionally such a situation might not develop.

We still adhere to the policy of getting the patient quiet, using supportive therapy with transfusions, giving liquid feedings such as milk, employing antacids and antispasmodics, and giving sedatives at the onset of the hemorrhage.

A. E. MOON, M.D.

Temple, Tex.

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Journal of the American Medical Association* 149:*729 (June 21) 1952.

Kuzell, W. C., and others: Phenylbutazone (Butazolidin®) in Rheumatoid Arthritis and Gout.

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Journal of the American Medical Association* 150:*1087 (Nov. 15) 1952.

Steinbrocker, O., and others: Phenylbutazone Therapy of Arthritis and Other Painful Musculoskeletal Disorders.

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Journal of the American Medical Association* 150:*1084 (Nov. 15) 1952.

Stephens, C. A. L., Jr., and others: Benefits and Toxicity of Phenylbutazone (Butazolidin®) in Rheumatoid Arthritis.

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Bulletin on Rheumatic Diseases* 3:*23, 1952.

Kuzell, W. C.: Phenylbutazone (Butazolidin®).

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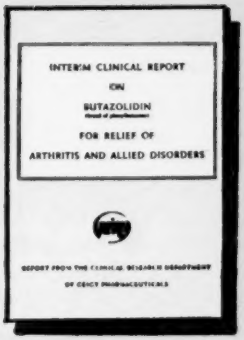

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► TO THE EDITORS: In recent years, it has become increasingly evident that massively bleeding upper gastrointestinal lesions which are amenable to surgical measures are best treated by early operation. This is particularly true of older patients and is the result of improved anesthesia and surgical technics, better understanding of blood transfusion, and the greater availability of blood for this purpose.

As a corollary of this trend, earlier accuracy of diagnosis becomes of greater importance. A careful history and physical examination often give a clue to the so-called "medical lesions" causing massive hemorrhage. Most often, however, the physical examination of the exsanguinated patient gives no information as to the source of bleeding in that group of patients best treated by early surgical interference. In such instances early roentgen examination has been found of the utmost value.

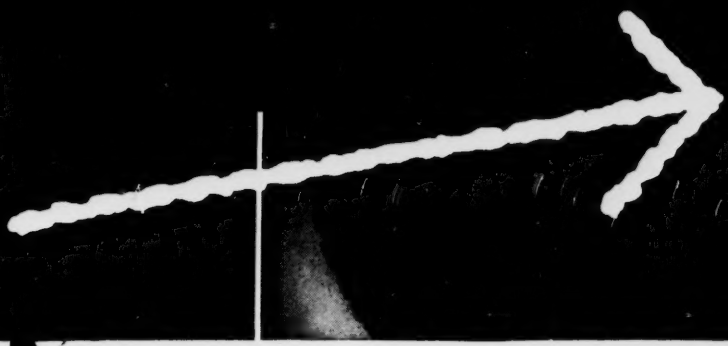
At the Massachusetts General Hospital, most massive bleeders for whom the diagnosis is in doubt after the history, physical examination, and laboratory studies have been weighed are admitted to the surgical ward and subjected to roentgen study. This is usually done, not as an emergency procedure, but after evaluation of the severity of the bleeding and institution of replacement therapy and at a time when the full-time radiology staff is available. This may be feasible on the morning after admission and usually is accomplished within forty-eight hours of entry to the hospital, barring secondary active bleeding or definite shock.

The technic is that defined in 1937 by Hampton and entails the swallowing of small amounts of barium by the patient in a recumbent position. No palpation is employed, and no preliminary lavage is done.

The results have been most gratifying and agree with those of Dr. Palmer. A positive diagnosis of ulcer was made within forty-eight hours after admission to the hospital in 85% of cases in which x-rays were used as a diagnostic aid. At the Boston City Hospital, roentgen study within twenty-four or forty-eight hours has been similarly used. It has been postponed only when active bleeding or definite shock supervened. In 87% of the cases reported by Zamcheck, Chalmers, et al., the correct diagnosis was made and, in the remaining cases, useful information was regularly obtained.

Accuracy of localization of the offending lesion in the upper gastrointestinal tract expedites the decision regarding operative interference and eliminates time-consuming exploratory procedures in patients requiring operation. No deaths have been directly attributable to the emergency roentgenogram itself. Careful roentgen study within the first day or two of hospital admission has been the most helpful single diagnostic aid in localizing the source of bleeding in this baffling group.

GORDON DONALDSON, M.D.
Boston



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► TO THE EDITORS: In cases of acute upper gastrointestinal hemorrhage, both the advocates of urgent surgical intervention as well as their more conservative colleagues recognize the great value of blood transfusions, food, fluid, and drugs. Nevertheless, it is obvious even to those who look upon surgery with misgivings that it is not possible to save all patients by strictly medical means. There will always remain a category of cases in which medical therapy is helpless but in which a surgical procedure offers a chance of saving life by preventing further blood loss.

Inasmuch as a watery suspension of barium appears to be no more dangerous to the patient than food, in those cases in which the origin of the massive bleeding is obscure, roentgenographic examination should be carried out as early as the patient's condition will permit.

EDWARD F. LEWISON, M.D.
Baltimore

► TO THE EDITORS: The excellent paper by Dr. Eddy C. Palmer on early roentgenologic and endoscopic examinations in the patient with upper gastrointestinal hemorrhage deserves praise from those who have discovered their value and serious consideration by those who have not.

Great studies have been made in the past decade on the management of these patients, particularly in regard to restoring and maintaining the blood volume with early and adequate transfusions. Stress has also been placed on immediate surgery for the patient with massive upper intestinal hemorrhage who does not respond to supportive measures or who bleeds again immediately after he has rallied from his first hemorrhage.

These methods are well enough recognized and employed by conscientious physicians and surgeons to be described as standard therapeutic procedure for this condition. By either of these measures the patient is sooner and more adequately prepared for "the vigorous diagnostic approach" than previously.

Accurate roentgenologic diagnosis of intestinal diseases has become increasingly available in the past decade due to the excellent postgraduate training that has resulted in many more highly skilled roentgenologists. This factor is frequently overlooked and the availability and importance of early roentgen diagnosis have been inadequately stressed. On the other hand, the dangers of producing further bleeding by manipulation incident to fluoroscopic diagnosis have been overstressed.

Careful history, physical examination, laboratory studies with particular regard to liver function, and roentgen studies of the stomach and duodenum as soon as the major bleeding stops have been of sufficient accuracy in our hands that endoscopic examination has rarely been employed. On the other hand, there are instances in which an immediate differential diagnosis is lifesaving and in which only an endoscopic examination makes this possible.

(Continued on page 154)

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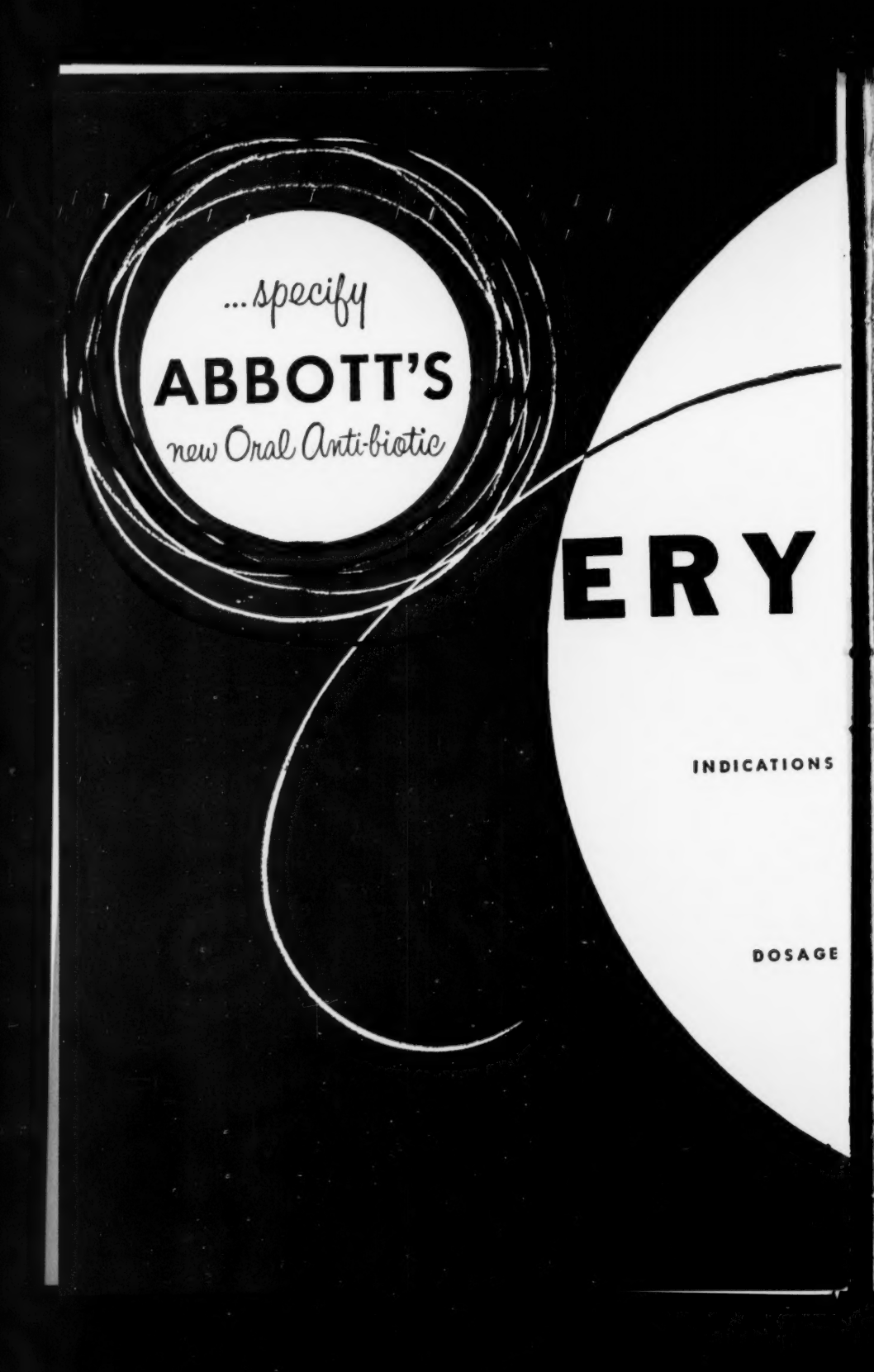
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INDICATIONS
DOSAGE

E *specially effective against gram-positive organisms resistant to other antibiotics.*

L *ow toxicity; gastrointestinal disturbances rare; no serious side effects reported.*

S *pecial "high-blood-level" coating.*

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Pharyngitis, tonsillitis, scarlet fever, erysipelas, pneumococcic pneumonia, osteomyelitis, pyoderma. *Also other organisms* susceptible to its action, which include staphylococci, streptococci, pneumococci, *H. influenzae*, *H. pertussis*, and corynebacteria.

Total daily dose of 0.8 to 2 Gm., depending on severity of the infection. A total daily dose of 0.4 Gm. is often adequate in the treatment of pneumococcic pneumonia.

For the average adult an initial dose of 0.1 to 0.4 Gm. is followed by doses in the same range every four to six hours.

For severely ill patients doses up to 0.5 Gm. may be repeated at six-hour intervals if necessary. Satisfactory clinical response should appear in 24 to 48 hours if the causative organism is susceptible to ERYTHROCIN. Continue for 48 hours after temperature returns to normal.

Abbott

1. McGuire et al. (1952), J. Antibiotics & Chemo., 2:281, June. 2. Heilman et al. (1952), Proc. Staff Meet. Mayo Clin., 27:385, July 16. 3. Haight and Finland (1952), New Eng. J. Med., 247:227, Aug. 14.

In summary, we are thoroughly in agreement with early roentgenologic and endoscopic diagnostic studies without delay after the patient has rallied from his first upper gastrointestinal hemorrhage. In our hands they have been used routinely, have been of great benefit in planning further therapy, and have never proved detrimental by stirring up further bleeding. There have been far too few papers in the general medical literature stressing the value and safety of immediate diagnostic studies in these hemorrhage cases.

W. S. LORIMER, M.D.
Fort Worth

► TO THE EDITORS: My personal estimate is that only 40% of the lesions causing upper gastrointestinal tract hemorrhage can be demonstrated by roentgenogram during the hemorrhage or immediately after the bleeding has ceased, whereas the accuracy of roentgen detection is well over 90% three weeks later.

This is explained in part by the fact that technical difficulties impose severe limitations upon roentgen examination of a bleeding patient. Such an examination frequently has to be confined to the diagnostically undesirable horizontal position. Palpation and use of a compression cone are restricted or altogether contraindicated in such cases.

Pain, muscular defense, shock, antrospasm, vomiting, and lack of cooperation by the patient often combine to render such an examination useless. Even in cases in which these difficulties are less pronounced or absent, an ulcer crater may escape radiologic detection during and immediately after a hemorrhage, whereas it may be uncovered with ease two weeks later. Whether or not a blood clot filling the crater is responsible for this phenomenon is still an unanswered question.

If surgery is contemplated within the next forty-eight hours, an immediate roentgen study of the upper gastrointestinal tract is useful despite the low detection rate at that particular time. If successful in demonstrating preoperatively the location or even the nature of a bleeding lesion, it has aided the surgeon considerably. If necessary, the examination can be performed even while blood transfusion and venoclysis are being carried out. The radiologist is well advised to have the surgeon alerted and the operating room in readiness at the onset of the examination in case the patient's bleeding becomes massive during the procedure. In such an emergency the radiologist might wish to accompany the patient personally to the operating room in order to avoid any delay in his transfer.

If possible, roentgen examinations of the upper gastrointestinal tract should be avoided within the first ten days after cessation of bleeding. The diagnostic yield will still be low within this period whereas the danger of restarting the hemorrhage is greatest.

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New York City

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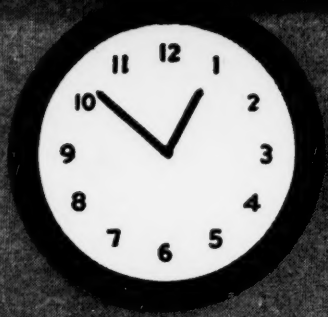

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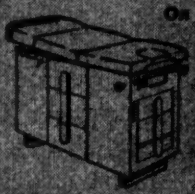

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Manual Extraction of the Placenta*

QUESTION: Under what circumstances is manual removal of the placenta advisable?

Comment invited from
Edward A. Graber, M.D.
Chester D. Bradley, M.D.

► TO THE EDITORS: The fear of sepsis resulting from manual removal of the placenta is greatly exaggerated. Actually, as Dr. Hugh Halsey II has noted, such removal has not proved dangerous if carried out with reasonable care before blood loss and bacterial contamination. The longer the interval between the termination of the second and third stages of labor, the greater the incidence of invasion of the uterine cavity by pathologic bacteria. With blood loss, the virulence of these organisms increases immensely.

Waiting a fixed period before active measures are taken to remove the placenta is not logical. It is contrary to the facts already known about the uterine physiology of this part of labor. Many investigators have proved that placental separation occurs at the time of the first or second uterine contraction after the birth of the baby. This is, therefore, when one should remove the placenta. If it remains within the uterus, it merely acts as a foreign body which interferes with the ability of this organ to contract and control the loss of blood.

If simple expression at this time does not expel the placenta, uterine exploration is indicated. In the vast majority of cases, the placenta will be found lying free in the lower uterine segment. In some, it may be incarcerated. Occasionally, it is almost completely separated, and a minor amount of manipulation is necessary to complete the mechanism.

Using the above criteria, the incidence of true manual removal in my reported series was about 2%. The uncorrected morbidity was slightly over 3%, and the mortality, zero. Antibiotics were not used prophylactically in any patient of this series.

It is definitely less hazardous to follow the routine of early removal than to subject a patient to bacterial invasion; constant blood loss from either uterus, lacerations, or episiotomy; prolonged or reinduced anesthesia; and the numerous other dangers resulting from delay and procrastination. I am certain that nobody questions the validity of immediate removal of the placenta in all patients who have uterine hemorrhage.

EDWARD A. GRABER, M.D.
New York City

► TO THE EDITORS: Manual removal of the placenta is rarely necessary if the doctor keeps the impatient hand off the fundus of the uterus. Needless attempts to hurry the uterus through the shortest yet most dangerous stage of labor often cause the organ to become refractory.

*MODERN MEDICINE, Nov. 1, 1952, p. 93.

In the face of hemorrhage, manual removal of the placenta should be done *at once*. Otherwise, I resort to manual removal only if the placenta is still retained forty-five to sixty minutes after birth of the baby, provided in the meantime the following procedures have been carried out:

1] Soon after delivery of the baby an attempt should be made to express the placenta by gentle pressure on the fundus. Many placentas, despite absence of classical signs of separation, will be found in the upper vagina and easily expressed. No vigorous kneading of the uterus is permissible and above all the traumatic and brutal Credé maneuver should be avoided.

2] After repair of the episiotomy, simple expression of the placenta by pressure on the fundus should again be attempted. Most will be ready for delivery by this time or even before. However, if the placenta is still retained, let the uterus alone for ten minutes by the clock.

3] The next step should be venoclysis of 1/1,000 Pitocin solution. If this fails, one may consider the injection of the umbilical cord with 500 cc. of normal saline solution—the hydraulic method of Mojon and Gabastou—provided no excessive blood loss has occurred in the meantime.

The last resort is manual removal of the placenta, which despite all modern safeguards is still a major procedure.

CHESTER D. BRADLEY, M.D.
Newport News, Va.

Doctor to Doctor

Think of a gag that fits the illustration. For every issue a new gag is published and the author is sent $5. The Feb. 15 winner is

O. R. Lynch, M.D.
Marengo, Ind.

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references

1. Statistical Bulletin, Metropolitan Life Insurance Company *33*:3, 1952.
2. Editorial: J.A.M.A. *148*:206, 1952.
3. Chapman, A. L.: Federal Security Agency, Public Health Reports *66*:725, 1951.
4. Armstrong, D. B.; Dublin, L. I.; Wheatley, G. M., and Marks, H. H.: J.A.M.A. *147*:1007, 1951.
5. Metropolitan Life Insurance Company, Pamphlet T5044, March 1951.
6. Armstrong, D. B.; Dublin, L. I.; Bonnett, E. C., and Marks, H. H.: Postgrad. Med. *10*:407, 1951.

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logically suspected

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Diagnostix

Here are diagnostic challenges presented as they confront the consultant from the first clue to the pathologic report. Diagnosis from the Clue requires unusual acumen and luck; from Part II, perspicacity; from Part III, discernment.

Case MM-233

THE CLUE

ATTENDING M.D: The woman in this room is a 40-year-old housewife who has had backache, intermittent and progressively more severe, for ten years. The pain is lumbosacral in location, with radiation to both gluteal regions. She has paresthesias in both legs and feet.

VISITING M.D: Has the pain always been bilateral?

ATTENDING M.D: No. Until three weeks ago the leg pain was limited to the left leg. Only in the present episode has there been bilateral radiation.

VISITING M.D: Any history of trauma?

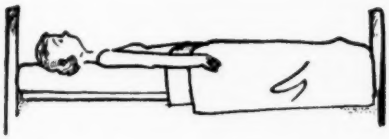
ATTENDING M.D: No.

VISITING M.D: What aggravates the pain?

ATTENDING M.D: Coughing and sneezing. Backache has been precipitated by lifting, straining, colds, bowling, and long automobile trips.

VISITING M.D: What gives relief?

ATTENDING M.D: Mainly bed rest. The woman goes to bed and stays there until the pain subsides. She lies motionless in a supine position on a hard mattress and recently has put a large sheet of plywood between the mattress and the box springs. She wears a corset when up.



VISITING M.D: There must be a catch in this case. It can't be so simple.

ATTENDING M.D: Catch! Only in the back.

PART II

VISITING M.D: You will remember the last patient we saw with backache had had all sorts of treatments, teeth pulled and so on. How about this woman?

ATTENDING M.D: I could hardly bring myself to tell you. During the second episode of pain she had 2 teeth pulled and her condition improved coincidentally. Her disorder recurred and it was diagnosed as "congenital back" with the suggestion that she try to get along with the "old lumbago."

VISITING M.D: Didn't anyone suggest she might have a disk?

ATTENDING M.D: Yes. She saw a general practitioner who did a spinal fluid examination which

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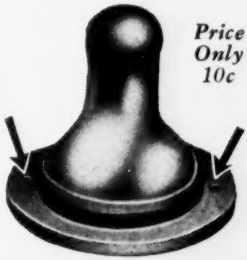

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had entirely normal results. He found her reflexes all intact. He told her that he thought she had a disk but it might be a tumor and he sent her here.

PART III

VISITING M.D: *(Examining patient)* Physical examination is normal. All spinal movements are limited and very painful. Bending forward results in a list of the trunk to the left. Sensation is normal, but both ankle jerks are absent. When did the referring physican examine her?

ATTENDING M.D: About ten days ago.

VISITING M.D: Well, the reflexes have gone in that time. Straight leg raising is positive on both sides, and there is tenderness along the course of both sciatic nerves. I see a bandage over the second lumbar interspace . . . what did the spinal fluid reveal?

ATTENDING M.D: Protein of 75 mg. per 100 cc. No block; clear in appearance.

VISITING M.D: Quite high. The roentgenograms? *(The Attending M.D. hands him films)* Narrowing in the lumbosacral interspace. No bony changes. The long history of recurrent bouts of low back and sciatic pain suggest disk. This is also indicated by the fact that the pain was unilateral until recently, but you will remember that about 40% of lumbar intraspinal tumor cases here had pain in only one lower extremity. In 20% there was only backache. Protein with a disk is usually below 100 mg. per cent. Do you have contrast roentgen studies?

PART IV

ATTENDING M.D: Here *(pointing);* there is a defect at the fourth lumbar interspace with an enormous protrusion that is obstructing the spinal canal almost completely.

VISITING M.D: Ordinarily I would suggest a trial of conservative therapy in the hospital, traction, and bed rest. But here progressive neurologic signs have appeared and, with the long duration and the tremendous size of the visualized lesion, surgery is in order.

PART V

SURGEON: *(At operation)* The preoperative diagnosis of disk is confirmed. There is a large lesion which I am removing. I try to make the operative procedure as short as possible with the sacrifice of little or no bone of the spinal column. Most fragmented disks can be removed without loss of bone.

VISITING M.D: In your operative series what is the situation of the pain in cases with disks?

SURGEON: Low back and sciatic pain together, two-thirds of the cases; low back pain alone, one-fifth of the total; about 4% of the patients have sciatic pain alone.

VISITING M.D: I guess this was a case that turned out to be the lesion it should have been. That is unusual for patients you let me see.

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LATE REPORTS *from Medical Centers*

★ CENTRAL INSTITUTE FOR THE DEAF, St. Louis—The acoustic energy of sound excites nerve impulses in the auditory nerve through electrical stimulation of the nerve fibers by the so-called "cochlear microphonic," according to a working hypothesis described by Dr. Hallowell Davis. Since the electric output may be greater than the original mechanical input, the additional energy must be provided by the metabolism of the tissues. The metabolic "battery" is assumed to be located in the stria vascularis in the wall of the scala media. The analogy suggested by the hypothesis is that of the carbon microphone of a telephone. A frequency analysis of the sound is performed mechanically in the inner ear, so that stimulation of the auditory nerve fibers occurs in one part or another of the sensory structure depending on the frequency of the incoming sound waves.

★ UNIVERSITY OF CALIFORNIA AT LOS ANGELES—The spirochete that causes leptospirosis can be grown in the laboratory through development of a highly complex diet. Dr. Meridian R. Ball is at work on a similar nutritional medium for the spirochete that causes relapsing fever, an organism not successfully cultivated in the laboratory. Such an approach eventually may make possible the culture of syphilis spirochetes.

★ U.S. PUBLIC HEALTH SERVICE, Washington, D.C.—The common cold in many cases this winter seems worse and different than usual. The reason may be that many are instances of streptococcus infections. Weekly reports to the U.S. Public Health Service indicate that the number of cases of streptococcal infection is 2 or 3 times the usual figure for this time of year.

★ UNIVERSITY OF MINNESOTA, Minneapolis—Tubular gastric resection has a wide field of usefulness but is probably of greatest value in treatment of duodenal ulcer. When considered from the standpoints of early postprandial distress, hypoglycemic symptoms, food intolerance, maintenance of nutrition, weight change, recurrent ulceration, maintenance of occupation and degree of endurance, anemia, and the patient's opinion regarding benefits in 51 cases, tubular resection compares favorably with other operations for the peptic ulcer diathesis, reports Dr. Lloyd D. MacLean. The operation, designed to remove a major portion of the acid-producing area of the stomach, is performed through a sternotomy incision. Gastric continuity is reestablished by transverse gastroplasty. Pyloroplasty is necessary only when organic pyloric obstruction exists. A smaller segment of stomach is removed than with Billroth II or segmental gastric resection.

LATE REPORTS *from Medical Centers*

★ WADLEY RESEARCH INSTITUTE AND BLOOD CENTER, Dallas--Females may have, as well as transmit, hemophilia. Occurrence of hemophilia in the female probably results from coincidence of the inheritance of a severe defect from both mother and father. Lesser degrees of bleeding tendency in females seem to be possible, point out Drs. J. M. Hill, Gwendolyn Crass, John Ellis, and K. P. Wittstruck, from inheritance of a defect that in males, at least, is part of the hemophilia picture. Such cases might be considered as slight or partial hemophilia.

★ WAYNE UNIVERSITY, Detroit--Sonochemistry, the science that deals with the chemical effects of sound waves, may be used to homogenize milk or to destroy bacteria in water supplies. Ultrasonic waves of high intensity can also be used to induce physical changes in chemical materials, asserts Dr. Ernest B. Yeager. At present, however, the processes are too expensive to be of more than laboratory interest.

★ INDIANA UNIVERSITY MEDICAL CENTER, Indianapolis--Discovery that certain drugs which protect laboratory mice against smallpox vaccine virus are effective against some strains of type II poliomyelitis virus has led to a large-scale project to study possible antipoliomyelitis effects of drugs used in treating hyperthyroidism, leukemia, and tuberculosis, announce Drs. Randall L. Thompson and Sherman A. Minton.

★ STANFORD UNIVERSITY, San Francisco--Because of temporary therapeutic value, isoniazid should be saved for use in times of crisis in tuberculosis, believes Dr. H. Corwin Hinshaw. Indisputable improvement is shown during the first months by the majority of patients receiving isoniazid. After six months, about half the patients given only isoniazid have relapses. When given in combination with streptomycin and para-aminosalicylic acid, isoniazid is valuable for protection during surgical procedures and for treatment of serious complications or potentially disastrous extensions of tuberculosis.

★ UNIVERSITY OF MICHIGAN, Ann Arbor--Treatment of cancer patients with radiations from cesium 137 is to begin under the supervision of Drs. Fred J. Hodges and Isadore Lampe. Results will be compared to those obtained with roentgen rays and with cobalt 60 emanations. If the treatment is successful, cesium will add a source of high-powered, long-lived radiation to the armamentarium against cancer.

medicine ABROAD

France

Early Diagnosis of Smallpox. Immediate differentiation between a severe form of chickenpox and smallpox can be made by means of an electronic microscope. The biologic distinction can be obtained only several days after inoculation of monkeys or rabbits.

Drs. P. Lépine and O. Croissant of the Pasteur Institute, Paris, report successful use of the electronic microscope in some recent cases of smallpox in France.

The material is taken from the fresh vesicle rather than from a pustule, the latter being already heavily infected with various bacteria.

The elementary bodies of the smallpox virus are quadrangular, almost cubic, with rounded edges, generally not grouped. The size varies from 200 by 250 to 200 by 290 millimicrons. Elementary bodies of chickenpox virus are smaller, have a spherical appearance, often differ in size, and usually appear in groups. The diameter ranges from 160 to 200 millimicrons. Thus because of the small size, globular form, and grouping, the elementary bodies of chickenpox are quite easily distinguishable.

Differential diagnosis between smallpox and vaccinia is much more difficult, the microscopic appearance being very similar. In vaccinia, the elementary bodies are only slightly smaller and less symmetric than the smallpox virus and may be grouped.

"Oh I'm just about the same."

Austria

Embolism and Diet. Well-nourished people are more likely to have embolism than the underfed, and women are particularly susceptible. Sudden fatal pulmonary involvement was reviewed at the Pathological Institute of Vienna by Drs. J. Zeitlhofer and G. Reiffenstuhl. Incidence during the past sixty years was highest in pros-

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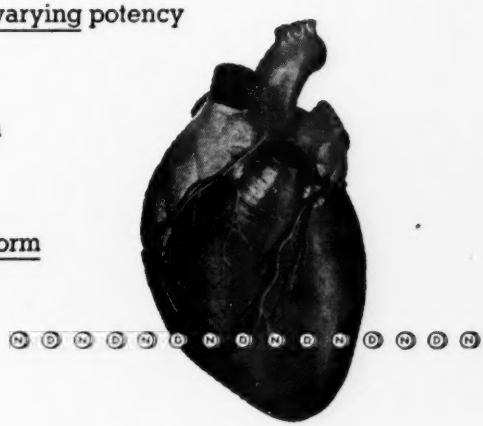

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perous intervals and lowest during hard times. Mortality among women was triple the rate for men, probably because of more frequent female obesity.

Sources of emboli were the calf in more than half the cases, femoral vessels in a third, and occasionally pelvic, parametrial, or prostatic veins or the right auricle.

Greece

Gastric Resection for Perforated Ulcer. Under proper conditions, gastric resection entails no greater mortality than simple closure or other conservative methods of treating perforated gastroduodenal ulcer, and is a curative rather than a palliative procedure.

Reporting only 2 deaths from 69 gastrectomies, Drs. George Carayannopoulos and Christos Christopoulos of Athens University believe that gastrectomy should be performed within eight hours after perforation but may be done later if local conditions during surgery appear satisfactory. The operation should not be used if the patient has a cardiopulmonary disorder, liver or kidney disease, reduced hemoglobin, hypoproteinemia, or is of an advanced age.

Of 39 patients treated by closure of the perforation, 11 died. In 3 cases continuous aspiration, by Taylor's method, was used without fatality.

Only 13.3% of patients treated by simple suture remain free of

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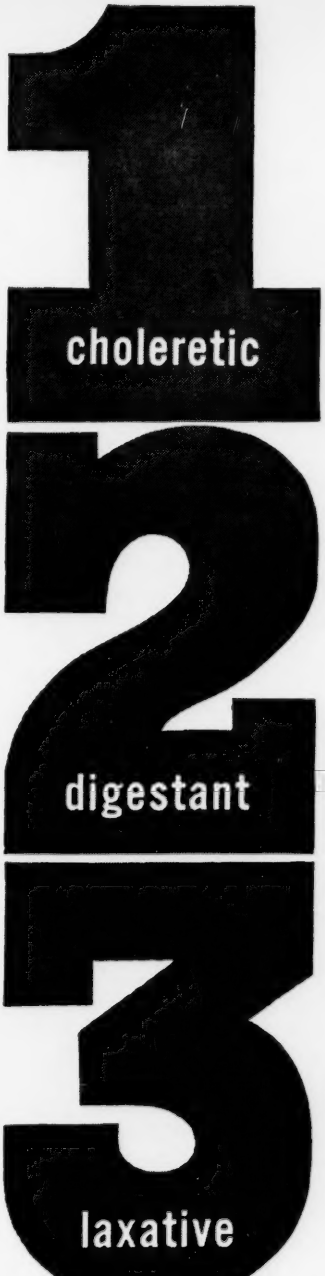

specifically indicated in biliary constipation

Constipation is usually associated with biliary stasis and impaired digestion. Tablets of Caroid and Bile Salts with Phenolphthalein offer 3-way help in the reestablishment of normal function in these cases.

CHOLERETIC ACTION
- Stimulating bile flow for easier fat digestion

DIGESTANT ACTION
- The enzyme, "Caroid," promotes protein digestion

LAXATIVE ACTION
- With minimal laxative dosage

Supplied: bottles of 20, 50, 100, 500, and 1,000.

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American Ferment Co., Inc.
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Caroid® and Bile Salts
TABLETS

specifically indicated / in biliary dyspepsia and constipation

symptoms; many return for more radical surgery. With gastrectomy, however, the ulcer is eliminated, hospitalization is shortened, additional surgery is avoided, the operation is technically easy, and closure of the duodenal stump sure.

Perforation on an empty stomach with a small quantity of liquids confined under the liver region without false membrane and with dilatation of the first loops of the jejunum is not a contraindication to gastrectomy.

"He's got a cold."

Denmark

Herpes Labialis and Pneumonia. Every febrile patient with herpetic lesions should have a thorough examination of the lungs, including radiography, believes Dr. O. Sylvest of Sundby Hospital, Copenhagen. Among 31,940 medical cases reviewed, 412 instances of herpes were associated with pulmonary disease, 51 with miscellaneous nonpulmonary infections, and 9 with alimentary disorders. Fever blisters in pneumonia were definitely a good omen, according to statistical analysis. Mortality was lower with lip involvement than without, even though in some instances the appearance of herpes was prevented by death.

"Slower, please. I lose count."

Switzerland

Intrauterine Poliomyelitis. During early pregnancy, the placenta may be permeable to poliomyelitis viruses. The viruses apparently have an affinity for certain epithelioid tissues in the fetal organism.

Dr. Gian Töndury of the University of Zurich describes histologic changes in the eyes of 2 stillborn fetuses whose mothers had poliomyelitis toward the end of the first trimester. The effects, consisting of degeneration of the lens fibers, were very similar to those seen in the fetus after maternal rubella.

Turn your back on winter... enjoy a glorious

TWA Quickie Vacation

in the SUN COUNTRY

THIS winter why not practice what you so often preach to your patients? Enjoy a change from dreary winter weather ... get away for a few days' rest to where the sun shines warm and bright, and the air is clear and dry. Take a glorious TWA Quickie Vacation to Phoenix, Las Vegas, Southern California, or any of the other famous midwinter resorts in the Sun Country.

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BASIC SCIENCE *Briefs*

Metabolism

Thyroid Hypertrophy

An adequate supply of sodium chloride is indispensable for development of goiter in mice during iodine deficiency, find Drs. A. A. Axelrad and C. P. Leblond of McGill University, Montreal. Mice were fed a basic low-iodine, low-salt diet, without additional salt or with supplements of 1 or 10%. In sixty-one days, average weights of left thyroid lobes were 4.2, 13.2, and 14.7 mg., respectively, in contrast to 1 mg. for mice fed ordinary laboratory rations.

Canad. M.A.J. 67:675, 1952.

Cardiology

Shwartzman Reaction

A lesion involving arteries of the heart may be produced in rabbits by systemic streptococcal infection. These lesions do not appear in the generalized Shwartzman reaction. Drs. Robert A. Good and Lewis Thomas of Minneapolis report that when rabbits are given 2 intravenous injections of meningococcal toxin, acute myofibrous necrosis but no vascular lesion is observed. If an intravenous injection of living Group A streptococci is substituted for the first injection and meningococcal toxin is given two days later, fibrinoid material appears inside walls of cardiac arteries within twenty-four to forty-eight hours. All structural elements are sometimes obliterated. Segments of wall become necrotic and occasionally rupture. Nearly half the animals with myocardial arteritis have bilateral cortical necrosis of the kidneys associated with occlusion of glomerular capillaries by fibrinoid deposits. Incidence of arterial lesions in the heart is doubled in rabbits infected one or two months before the experiment.

J. Lab. & Clin. Med. 40:804-805, 1952.

Gastroenterology

Pancreatic Inhibition

Carbonic anhydrase, a pancreatic enzyme concerned with the hydration of carbon dioxide, has a dominant role in the formation of sodium bicarbonate by the gland. In dogs with duodenal fistulas, Drs. David Birnbaum and Franklin Hollander of Mount Sinai Hospital, New York City, find intravenous injection of the inhibiting agent No. 6063 reduces the volume output of the pancreas as much as 95% and the bicarbonate concentration as much as 60% after stimulation with secretin. The drug is described as acetylamino-1,3,4-thiadiazole-5-sulfonamide, and may be 440 times more potent as an antagonist in vitro than sulfanilamide.

Proc. Soc. Exper. Biol. & Med. 81:23-24, 1952.

VI-PENTA DROPS

ROCHE

VI- PENTA

DROPS

TASTE

GOOD

Metabolism

Renal Decapsulation

The death rate of young rats is significantly decreased if unilateral renal decapsulation is done immediately before the animals are fed choline-deficient diets for a week. Severe renal lesions resembling those seen with acute bilateral cortical necrosis occur when the unoperated animals are given such food. Many of the rats die in the acute stage of the disease. The kidneys become greatly enlarged, dark, and tense and microscopically reveal necrosis, congestion, and casts in the distal tubules. Dr. James H. Baxter of the National Institutes of Health, Bethesda, Md., believes that the decrease in deaths and reduction in renal damage with prior renal decapsulation is probably related to the reduction of intrarenal pressure brought about by removal of the rigid capsule.

J. Exper. Med. 96:401-408, 1952.

Endocrinology

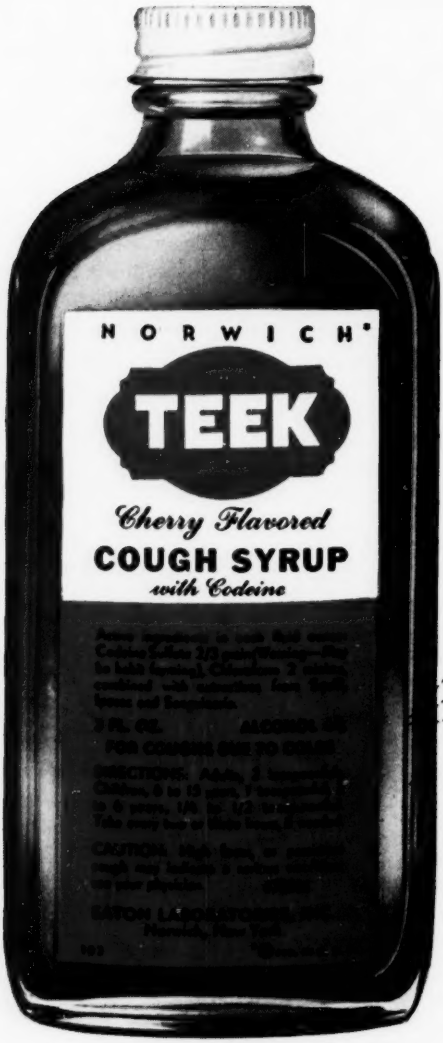
Cortisone and Pregnancy

Damage of 2 types, concurrent and delayed, is inflicted on the pregnant rabbit by treatment with cortisone. Concurrent injury is noted when administration of the hormone results in degeneration of the fetus or abortion, or both; delayed injury is seen when fetal growth continues after medication is stopped but stillbirth results. As gestation progresses, the doe becomes increasingly sensitive to daily doses of 15 mg. of the acetate, which is equivalent to 225 mg. for a 60-kg. person, and parturition may be delayed. The compound does not possess gonadotropic properties in rabbits, release luteinizing substance from the adenohypophysis, or interfere with the action of exogenous gonadotropin upon the mature ovary. Prolonged use of cortisone in women may cause amenorrhea, but moderate amounts for sixty days or less do not induce menstrual disturbance or affect gestation. If necessary, the drug may be given to gravidas. From the lack of parallelism in the effects of the steroid on human beings and on rabbits, Drs. Edwin J. DeCosta and Maxwell A. Abelman of Northwestern University and Michael Reese Hospital, Chicago, emphasize that the data obtained from animals cannot always be applied to man.

Am. J. Obst. & Gynec. 64:746-767, 1952.

"Thanks for explaining my ailment in medical terms; now please explain the medical terms."

TEEK for coughs



Contains codeine ⅔ grain per oz.; extractives of squill, ipecac and Sanguinaria; chloroform and alcohol.

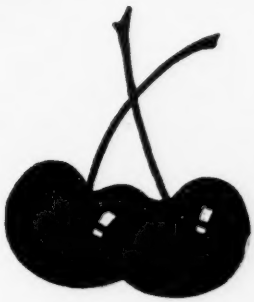
Exempt narcotic—prescription not required.

provides:

prompt cough relief

effective expectorant action

soothing, palatable vehicle



Delicious Cherry Flavor

EATON LABORATORIES Inc.
NORWICH, NEW YORK

short REPORTS

Antibiotics

Prevention of Gas Gangrene

Clostridial invasion of wounds or other danger zones may be reduced by local injection of antibiotics. Terramycin, aureomycin, penicillin, and Chloromycetin, in the order listed, are effective in controlling *Clostridium septicum, Cl. bifermentans, Cl. histolyticum,* and *Cl. novyi,* state Drs. Welton I. Taylor and Milan Novak of the University of Illinois, Chicago. Only antitoxin inhibits *Cl. perfringens.* Apparently no strain of *Clostridium* is affected by polymyxin B.

Antibiot. & Chemother. 2:639-644, 1952.

Cardiology

Electric Resuscitation

An external electric pacemaker will quickly and safely arouse the heart from ventricular standstill without need of opening the chest. The patient may be tided over an emergency lasting for several hours or days. Dr. Paul M. Zoll of Harvard University, Boston, employs a thyrotron physiologic stimulator. Periodic impulses of direct current ranging from 2 to 20 milliseconds are generated at low voltage with variable intensity and frequency. Electrodes are attached to needles placed subcutaneously in the chest wall at points in a line traversing the ventricles. In 2 cases of ventricular asystole after complete heart block, heartbeats were maintained artificially for twenty-five minutes and five days, respectively. In the first instance, a fatal cardiac tamponade resulted from cardiac punctures in previous therapy. In the second, life was prolonged until spontaneous contractions were resumed. The condition improved steadily without ill effects.

New England J. Med. 247:768-771, 1952.

Oncology

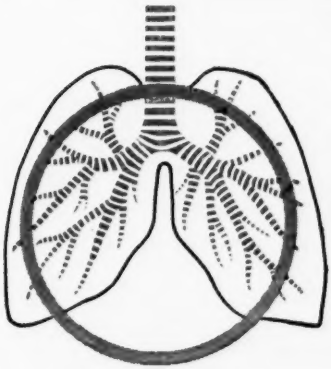
TACE Treatment

Prostatic carcinoma may be more effectively controlled by tri-*p*-anisylchloro-ethylene (TACE) than by other estrogens. Drs. Vincent J. O'Conor and John K. Sokol of Northwestern University, Chicago, report results in treatment of 50 patients with cancer of the prostate for twenty months with TACE. Only 5 had gastrointestinal disturbances, in 1 case severe enough to require discontinuance of TACE and substitution of another form of estrogen. Compared to similar patients treated with such substances as diethylstilbestrol, estinyl, or premarin, gynecomastia was not observed. Breasts of 3 patients were tender enough to require temporary discontinuance or reduction in dosage.

Quart. Bull., Northwestern Univ. M. School 26:161-162, 1952.

In Bronchial Asthma

—*an Effective Treatment*



ACTH continues to be foremost in the treatment and management of intractable bronchial asthma. ACTH has been dramatic in relieving acute paroxysms of bronchial asthma; periods of complete freedom lasting for several weeks or months have been induced by a single course of ACTH therapy.[1-5]

In 5 patients with chronic intractable asthma treated with ACTH or cortisone, incapacitating attacks were avoided and an asymptomatic state was restored. ACTH seemed to bring about more uniform results than cortisone.[6] "A long-acting preparation of ACTH in gelatin gave the best results and required the smallest dosage."[6]

HP*ACTHAR *Gel*, the new repository ACTH, provides complete convenience and ease of administration in short-term treatment of bronchial asthma.

HP*ACTHAR *Gel*

(IN GELATIN)

Administered as Easily as Insulin:
Subcutaneously or intramuscularly with a minimum of discomfort.

Fewer Injections:
One to two doses per week in many cases.

Rapid Response, Prolonged Effect:
Combines the two-fold advantage of sustained action over prolonged periods of time with the quick response of lyophilized ACTHAR.

Much Lower Cost:
Recent significant reduction in price, and reduced frequency of injections, have increased the economy of ACTH treatment.

(1) Bordley, J. E., et al.: Bull. Johns Hopkins Hosp. 85: 396, 1949; (2) Rose, B., et al.: Canad. M. A. J. 62: 6, 1950; (3) Randolph, T. G., and Rollins, J. P.: In Proceedings of First Clinical ACTH Conference, edited by J. R. Mote. Philadelphia, The Blakiston Co., 1950, p. 479; (4) McCombs, R. P., et al.: Bull. New England M. Center 12: 187, 1950; (5) Baldwin, H. S., and DeGara, P. F.: J. Allergy 23: 15, 1952; (6) McCombs, R. P.: New England J. Med. 247: 1, 1952.

**Highly Purified.* ACTHAR® *is the Armour Laboratories Brand of Adrenocorticotropic Hormone—*ACTH (*Corticotropin*)

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PHYSIOLOGIC THERAPEUTICS THROUGH BIORESEARCH

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with this new therapeutic combination

White's

A-P-Cillin

A recent clinical evaluation* of the effectiveness of certain drug combinations in acute upper respiratory infections, including the "common cold", clearly demonstrated A-P-Cillin to be, by far, the superior preparation.

It was found that 97.5% of the patients receiving A-P-Cillin were completely asymptomatic or improved at the end of the 72 hour treatment period.

Other commonly used preparations brought only 54% and 47% relief by the end of the same period.

To relieve distressing nasopharyngeal and constitutional symptoms, and to prevent secondary upper respiratory complications, prescribe—

White's A-P-CILLIN

Each tablet contains:

Procaine Penicillin G		100,000 units
APC	Acetylsalicylic acid	2½ gr.
	Phenacetin	2 gr.
	Caffeine	½ gr.
Phenyltoloxamine Dihydrogen Citrate (antihistamine)		25 mg.

Dosage: 2 tablets, t.i.d. for the duration of symptoms, preferably administered at least one hour before or two hours after meals.

White Laboratories, Inc., Kenilworth, N. J.

*McLane, R. A.: Clinical Evaluation of Combined Drug Therapy in Acute Upper Respiratory Infections, J. M. Soc. N. J. 49:509 (Dec.) 1952.

Public Health

Canal Zone Histoplasmosis

Nonfatal, or benign, histoplasmosis may exist on the Isthmus of Panama, although no case has been recognized in that region since 1906. Dr. Harold A. Tucker of the Rangoon General Hospital, Rangoon, Burma, reports that when histoplasmin and tuberculin tests were administered to 1,000 consecutive patients at the Colon Hospital, Cristobal, and chest roentgenograms made, 77 reacted to histoplasmin only, 303 to tuberculin, 310 to both antigens, and 310 to neither. Calcific lesions were seen on 113 roentgenograms. Reactors to one or both antigens showed prevalence of calcified foci ranging from 11 to 17%, whereas patients reacting to neither showed only 4.5%. Of the 1,000 patients, only 366 had ever been away from the Isthmus and none had visited the United States. Since these findings were reported, a morphologically typical tissue-phase *Histoplasma capsulatum* has been found on a lymph-node smear made after death of a 4-month-old Panama native, although cultural and animal inoculation studies were unsatisfactory.

Dis. of Chest 22:514-522, 1952.

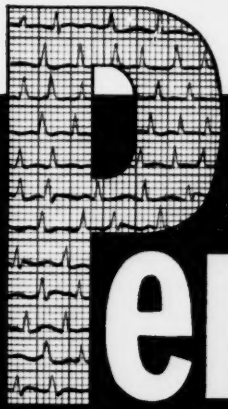
Endocrinology

Adrenogenital Syndrome

Congenital adrenal hyperplasia may produce hypertension and carbohydrate regulative disturbances as well as virilism and disorders of electrolyte regulation. The hypertension may be controlled with small doses of cortisone. High blood pressures were observed in 3 patients with the adrenogenital syndrome, report Dr. Lawson Wilkins and associates of Johns Hopkins University, Baltimore. Normal pressures have been maintained fourteen to twenty-four months by daily injection of 12.5 mg. of cortisone in a 30-month-old boy, and 75 mg. every third day in 2 young women. Complete suppression of abnormal adrenal activity, evidenced by decreased excretion of 17-ketosteroids, is achieved by these dosages. Deficiency of adrenal glycogenetic hormones is probable in the boy because of an episode of hypoglycemia and altered glucose tolerance tests when not being given cortisone. The theory that carbohydrate regulatory hormones are derived from the zona fasciculata is compatible with the finding after unilateral adrenolectomy that the zone could not be well identified in this patient.

J. Clin. Endocrinol. 12:1015-1030, 1952.

"Well, what are you hanging around for?"



Pertenal®

for safer control of HYPERTENSION

In PERTENAL the potent vasodilator, mannitol hexanitrate, supplements the hypotensive action of veratrum, allowing the veratrum to take effect at a lower blood pressure level . . . assuring well sustained reduction of pressure, with minimal, *safer* veratrum dosage, *and* prompt relief of headache, dizziness, worry, restlessness, insomnia, gastrointestinal discomforts and other symptoms which often aggravate pressure.

PERTENAL treats the patient as a whole – helps assure
a more comfortable, more tranquil, often longer life.

Dose: 1 tablet every 4 to 6 hours.

Supplied in bottles of 50, 100 and 500 tablets.

each PERTENAL tablet contains:

Veratrum Viride (standardized extract of the whole drug)	100 mg. (1½ gr.)
Homatropine Methylbromide	2.5 mg. (1/25 gr.)
Mannitol Hexanitrate	30 mg. (½ gr.)
Phenobarbital	15 mg. (¼ gr.)

Comprehensive literature and *samples* on request

CROOKES LABORATORIES, INC. Crookes MINEOLA, NEW YORK

Therapeutic Preparations for the Medical Profession

Cytology

Pancreatic Alpha Cells

The recent discovery that toxic effects of cobalt on the pancreas are confined to alpha cells of the islets of Langerhans has thrown new light on glandular function. Dr. Martin G. Goldner and associates of the Jewish Sanitarium and Hospital for Chronic Diseases, Brooklyn, studied rabbits after injection of cobaltous chloride. No significant hypoglycemia resulted. Within two days after a single intravenous dose, alpha cells completely disappear in most of the islets, and remaining cells disintegrate. Blood sugar rises soon after injection and returns to normal range in four to five hours. A second dose repeated two days later causes a second rise, possibly because of extrapancreatic factors.

Metabolism 1:544-548, 1952.

Hematology

Refractory Macrocytic Anemia

Vitamin B_{12} is apparently utilized for hemopoiesis in a bound form, and failure of proper binding may cause refractory macrocytic anemia. Normal human plasma contains a factor that overcomes this defect. Drs. Daniel L. Horrigan and Robert W. Heinle of Cleveland cite a case of anemia persisting for eighteen years. Free hydrochloric acid was observed in the fasting stomach, and no improvement resulted from oral doses of iron or intramuscular injections of crude liver extract. Remissions were produced by an intramuscular dose of 90 μg. of vitamin B_{12} or by 250 cc. of plasma given intravenously. However, remission was not maintained by 30 μg. of B_{12} injected into muscle every week or two or by oral folic acid, 10 mg. daily. About 60% of the B_{12} dose was excreted by the kidneys in twenty-four hours, in contrast to normal levels of 0 to 10%, but plasma therapy reduced urinary B_{12} to 24%. The therapeutic material in plasma may be [1] the binding substance, [2] an element that favors combination of the binding factor with B_{12}, or [3] the vitamin in bound form.

Proc. Central Soc. Clin. Research 25:42-43, 1952.

Virology

Virus in Nephritis

Isolation of a virus from the urine and sometimes also from the blood of 5 patients with acute glomerulonephritis is reported. Dr. Akira Sakamoto and associates of Nagoya University, Japan, who inoculated guinea pigs with centrifuged specimens from the patients, found that the subsequent illness and death of all experimental animals resulted from nephrosis, liver damage, and extensive intraabdominal hemorrhage. Serial transmission of the infection is possible by injecting healthy animals with emulsions of diseased guinea pig organs. The gross and microscopic changes observed, in addition to the transmissibility of the disease in animals, suggest the activity of a specific virus.

Tohoku J. Exper. Med. 56:229-231, 1952.

oral diuretic without equal

"...superior...in promoting sodium and water excretion."[1]

"...three-fourths the diuretic action of the standard [meralluride by injection]..."[2]

"...a valuable substance to replace parenteral diuretics in patients who require continuous diuretic medication."[3]

NEOHYDRIN®

THE DIURETIC TABLETS THAT WORK

1. Moyer, J. H., and Handley, C. A.: Federation Proc. *11*:378, 1952.
2. Greiner, T.; Gold, H.; Warshaw, L.; Palumbo, F.; Weaver, J.; Mathes, S., and Marsh, R.: Federation Proc. *11*:352, 1952.
3. Goldman, B. R., and Steigmann, F.: J. Lab. & Clin. Med. *40*:803, 1952.

how to use this new drug

Maintenance of the edema-free state has been accomplished with as little as one or two NEOHYDRIN Tablets a day. Often this dosage of NEOHYDRIN will obtain per week an effect comparable to a weekly injection of MERCUHYDRIN.® When more intensive therapy is required one or two tablets three times daily may be prescribed as determined by the physician.

Gradual attainment of *intensive therapy* is recommended to preclude gastrointestinal upset which may occur in occasional patients with immediate high dosage. In rare instances a sensitivity to NEOHYDRIN may arise. Though sustained, the onset of NEOHYDRIN diuresis is gradual. Injections of MERCUHYDRIN will be initially necessary in acute severe decompensation.

Contraindicated in acute nephritis and nephrosclerosis.

Any patient receiving a diuretic should ingest daily a glass of orange juice or other supplementary source of potassium. Any patient receiving a diuretic should be watched for signs of depletion in sodium and chlorides especially in hot weather. Such depletion may first manifest itself as a refractivity to the diuretic and can be corrected by ingestion of sodium chloride.

packaging

Bottles of 50 tablets. There are 18.3 mg. of 3-chloromercuri-2-methoxy-propyl-urea in each tablet.

Leadership in diuretic research

Chapman LABORATORIES, INC., MILWAUKEE 1, WISCONSIN

Toxicology

Chronic Lead Poisoning

BAL is a safe and effective deleading agent for chronic as well as acute metal poisoning. Some, though not all, neurologic lesions are reversible, and treatment should begin as soon as possible to prevent permanent injury of the brain. Dr. Rudolph C. Giannattasio and associates of Kings County Hospital, Brooklyn, treated 3 children, all about 3 years old. The patients had been chewing paint from the walls for as long as six months. Doses of 4 mg. per kilogram of body weight were injected intramuscularly every four hours for twenty days, using a 10% solution of BAL in benzyl benzoate and oil. Urinary excretion increased 300 to 700%, and lead deposits in bone were visibly reduced. Symptoms such as joint pain, constipation, and frequent falls completely disappeared.

Pediatrics 10:603-611, 1952.

Gynecology

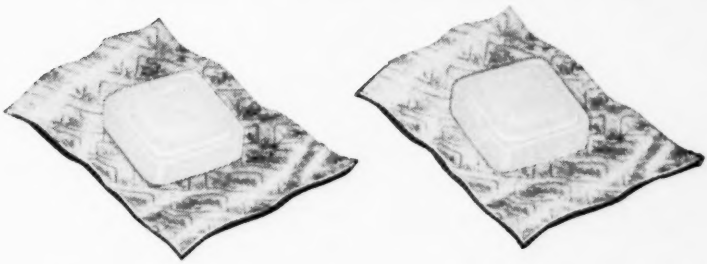
Cervical Flora and Sterility

Spermicidal bacteria in the secretions of seemingly uninfected cervices may be a factor in infertility. Examining cultures taken at the time of ovulation, Dr. Charles Lee Buxton and Ada S. H. Wong of Columbia University and the Sloane Hospital for Women, New York City, demonstrated coliform bacilli, streptococci, *Clostridium welchii*, and *Proteus vulgaris* in specimens from 176 or 84.2% of 209 sterile women. The results of postcoital tests at ovulation were extremely poor despite the husband's normal sperm count. Antibiotic treatment of 95 of these women resulted in disappearance of the pathogens in 49 and pregnancy in 16 of the 49; improvement of postcoital tests occurred in 12 and pregnancy in 5 of the other 46. The individualized therapy comprised oral administration of aureomycin or terramycin, 2 gm. daily for four days immediately after a menstrual period, and a course of 4 injections into the submucosa of the cervical canal at 4 or more points every other day in the preovulatory phase with one of the following: penicillin, 1,000,000 units; streptomycin, 0.5 gm.; or bacitracin, 2,000 units. The antibiotics were dissolved in 2 cc. of saline or distilled water. The pregnancy rate, 22.1%, was low, but the subjects were the residue after all other treatment had failed.

Am. J. Obst. & Gynec. 64:628-636, 1952.

"Oh, boy! Breakfast in bed!"

Same hard candy form as Pondets
Easy to take—pleasant tasting



Now . . . . .

Sul-Pondets, presenting the combined therapeutic advantages of two potent antibiotics, an efficient sulfonamide and a highly active topical anesthetic. Highly effective in certain local infections of the oropharynx.

Sul-Pondets®

PENICILLIN—BACITRACIN—SULFADIAZINE
Troches with Benzocaine

Each SUL-PONDETS contains 20,000 units crystalline potassium penicillin G, 50 units bacitracin, 2 gr. sulfadiazine, and 3 mg. benzocaine. Jars of 36.

Also available: PONDETS—Penicillin (20,000 units) and Bacitracin (50 units). Vacuum-packed in tins of 48.

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Unlike other widely employed nasal vasoconstrictors, ARAMINE *may be relied upon to relieve nasal congestion before retiring or during the night. Since* ARAMINE *apparently does not stimulate the central nervous system, it should not interfere with sleep.*

Latest Development in Intra-Nasal Therapy

Compare 'ARAMINE' with other nasal decongestants			
Attribute	'ARAMINE'	EPHEDRINE	COMPOUND A
Duration	Moderate	Moderate	Protracted
Nasal damage from prolonged use	No	Occasionally	Occasionally
Irritation (stinging)	Virtually none	Yes	Virtually none
Secondary engorgement	Virtually none	Occasionally	In some patients
Excitation or insomnia	No	Yes	No
Palpitation	No	Occasionally	?
Inhibition of ciliary motility	Mild	Marked	Mild

Gentle-acting ARAMINE *may be administered safely to patients of all ages. Its use effectively shrinks engorged mucosa, permitting easier and more normal breathing, and facilitates drainage of excess fluids and debris.*

A development of the Sharp & Dohme Medical and Research Divisions, ARAMINE *is the first new nasal vasoconstrictor of any consequence to be introduced to the medical profession in more than a decade*

ARAMINE IS AN EXCEPTIONALLY EFFECTIVE, GENTLE-ACTING NASAL DECONGESTANT

Many nasal decongestants currently being used may actually aggravate symptoms—due to an inherent vasodilating component, or because their vasoconstrictor action is so potent that the initial shock to the nasal mucosa results in secondary engorgement, or "rebound" swelling.

ARAMINE appears to have no vasodilating component, and its vasoconstrictor action is not so intense or prolonged as to irritate or damage the sensitive nasal mucosa.

ARAMINE acts rapidly, but *gently;* it possesses a moderate duration of action. It has no apparent stimulant effect on the central nervous system, and does not appreciably interfere with normal ciliary activity.

The MIJIT *atomizer-dropper may be easily carried in the pocket or handbag, to be used inconspicuously, as an atomizer or dropper, at home or at work.*

is Applied with Unique New Atomizer-Dropper

SHARP & DOHME

Aramine®

BITARTRATE

ARAMINE is supplied as an isotonic solution of ARAMINE *bitartrate, (0.25% ARAMINE) with a pH of 6, compatible with normal nasal physiology.*
Combination packages contain 1 oz ARAMINE *with* MIJIT. *Also, 1 oz. bottle with plastic dropper.*
Sharp & Dohme, Philadelphia 1, Pa.

'MIJIT' DELIVERS MEDICATION AS FINE, PENETRATING MIST, OR AS INDIVIDUAL DROPS

Equipped with a specially designed plastic nozzle, the MIJIT atomizer delivers ARAMINE Intranasal Decongestant as a fine, penetrating mist, or (when inverted) as drops. When used as an atomizer, MIJIT assures diffusion of ARAMINE in nasal passageways.

When inverted, the MIJIT may be used as a dropper for those occasions in which it is desirable to concentrate medication on the engorged epithelium of the turbinates to relieve obstruction of the nasal airways.

Gastroenterology

Ulcer Prevented by Bile

Fresh ox bile, commercial bile powder, purified bile acids, and other isolated fractions protect rats against ulcers. Compounds apparently act by reducing the secretion of acid rather than by neutralizing acid already formed, according to Dr. Casimir Funk and associates of the Funk Foundation for Medical Research, New York City. To produce ulcer in rats, food is withheld from the animals three days, then the pylorus is ligated. Some animals die of perforated lesions within eight hours. When 50 to 150 mg. of bile product was given orally in 2 doses, at the time of ligation and three hours later, both the ulcer index and total and combined gastric acid decreased.

Science 116:638-639, 1952.

Physical Medicine

Stress Incontinence Therapy

Electrical stimulation of the perivaginal musculofascial structures involved in the voluntary inhibition of urination is beneficial in some cases of stress incontinence. Treatments are given twice weekly for five weeks or five days a week for three months unless volitional muscle contractions are regained sooner. Dr. J. W. Huffman and associates of Northwestern University, Chicago, used a modulated sinusoidal current of variable carrier frequency in treatment of 17 women. Some had no discoverable neurologic or urologic cause for the incontinence and had had several futile operations. Of the 17 patients, 7 were cured, 4 were improved, and 6 remained unchanged.

Arch. Phys. Med. 33:674-676, 1952.

Our Office Nurse

Think of a gag that fits the illustration. For every issue a new gag is published and the author is sent $5. The Feb. 15 winner is

J. W. Sherman, M.D.
Philadelphia

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Happy Mealtimes make a vital contribution to

INFANT NUTRITION

Added ounces and inches are only part of the benefit a baby derives from happy mealtimes.

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As soon as one of your young patients is ready for solids, you can recommend Beech-Nut Foods with complete confidence in their fine nutritive values and in their appealing flavor. With so many tempting varieties to choose from, mealtimes can be happy for your young patients from the very start.

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Tests

Hepatic Damage in Jaundice

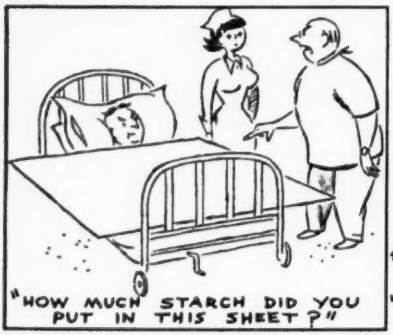
Plasma cholinesterase activity provides a sensitive index of impaired liver function. In conjunction with flocculation tests, cholinesterase determination affords prognostic as well as diagnostic information. Plasma cholinesterase activity below 936 μl. carbon dioxide per cubic centimeter per hour may be considered abnormal, according to Dr. Andrew Wilson and associates of University College, London. In acute and subacute hepatitis, low levels of cholinesterase confirm results of flocculation tests. Upon recovery of liver function, cholinesterase levels provide an immediate prognostic indication, since the return to normal precedes that of other test reactions. The cholinesterase determination is usually low in chronic liver disease, but affords no clue concerning malignant or cirrhotic etiology. Normal cholinesterase levels are found with extrahepatic obstruction of short duration. After prolonged obstruction, during attacks of cholangiohepatitis, and with malignant disease, the activity is low.

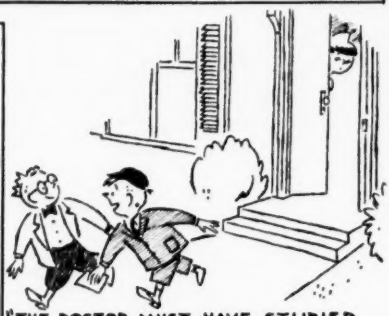
J. Clin. Investigation 31:815-823, 1952.

"And are you still bothered with the urge to commit suicide?"

Nellie Nifty, R.N.

by kaz





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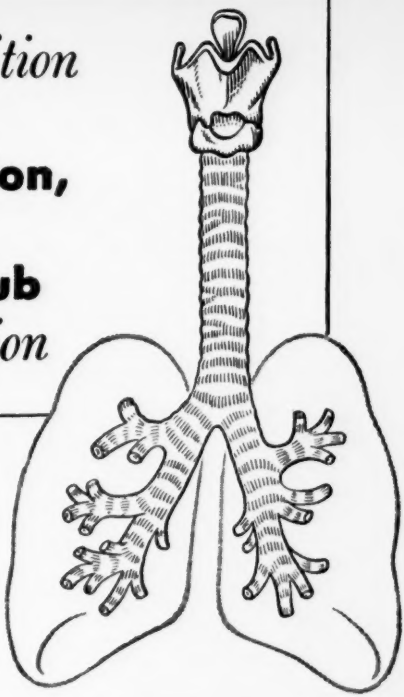

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Such volatiles as menthol, thymol, and oil of eucalyptus make Vicks VapoRub an ideal medication for use in steam. The well-balanced formula is helpful in soothing the irritated mucosa of the respiratory tract, as well as in combatting the dryness that usually accompanies infection.

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We will be pleased to send you a supply of samples for distribution to your patients.

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Expert Opinion

I was surprised to meet a patient of mine who had been in an automobile accident still hobbling along on crutches.

"I thought you threw away those crutches. I told you weeks ago you didn't need them."

"Yeah, I know you told me I didn't need them anymore," replied the man uncomfortably, "but my lawyer insists that I do."—S.M.

Terminology

Patients use various circumlocutions when modesty prevents plain talk. One of my newly postpartum patients called me to ask, "Doctor, may I shower downstairs with soap?"

"Why," I asked absentmindedly, "are you upstairs now?"—S.J.L.

"Pardon my talking so fast, but I expect to be drafted any moment."

PEDIATRICS BULLETIN

Prepared In The Interests Of The Profession By The Pediatrics Consultant Staff Of H. J. Heinz Company

Child **ACCIDENTS**

WITH REDUCTION of mortality and morbidity from many diseases, accidents are now the leading single cause of child deaths. One-third of our child deaths are due to accidents.

● **The traditional duty** of us physicians is to *treat* accidents, but it is also our duty to shoulder certain responsibilities for *prevention*. During home visits to the new mother, and in routine child health care, we can easily give effective parental instruction.

● **Descriptions** of possible accidents would fill volumes and statements of general principles may cause only uncritical parental fear and are usually ineffective. Certain specific situations, however, cause a high percent of accidents and can be specifically prevented. The dangers of open safety pins in bed, the child left alone on a table or couch, a casual permissive attitude towards peanuts during play, hot dishes on the edge of the stove, can be taught by only a word to the eager young mother. Inspection of closets and the space under the kitchen sink for poisonous materials, can warn the mother of the young crawling child of many common dangers.

● **A physician's word** carries great weight. Our sacrifice of a little of our time may well prevent many deaths.

NOTE: These bulletins are designed to help disseminate modern pediatrics knowledge to the general medical profession and will appear monthly in Modern Medicine.

Not a Chance

Last week end I had a patient referred for severe epistaxis. She was four months pregnant. Someone had told her husband that it might be the normal time for her period and could be called "vicarious menstruation." If that was so, he wanted to know, was his wife going to have a miscarriage through her nose! I told him I was only an ENT man but that I felt confident that she was not.—C.E.S.

Chlorophyll in aspirin should be good for this stinking headache.—S.B.C.

Wrong Drawer

The door of the pelvic room swung open as I walked by and a woman patient called to me.

"Doctor," she said, "will you please show me how to put this thing on?"

"Surely," I replied expecting to see a hospital gown, "hand it here."

"This is what you gave me," said the patient, holding out a pillow case.

Then it dawned on me that the nurse had put the linen in the wrong drawer.—M.A.

"A psychiatrist is a man who, when a beautiful girl enters a room full of people, looks at everyone else."—E.J.B.

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